THINKING AND UNDERSTANDING IN THE PRIMARY SCHOOL CURRICULUM

THESIS FOR PhD (PHILOSOPHY OF EDUCATION)

MICHAEL R BONNETT

UNIVERSITY OF LONDON INSTITUTE OF EDUCATION

ABSTRACT

This thesis addresses certain a ects of the issue of what it is to develop children's thinking and understanding with particular reference to primary education, and against the backdrop of the National Curriculum. It begins by identifying some of the professional responsibilities of teachers in this area and some of the judgments that they have to make in the course of their practice. Some of the pr blematic assumptions which underlie commonly held responses to the issues these judments raise are set out. The relationship between the development of thinking and understanding and other aspects of human life such as action and emotion are also given some preliminary discussion.

The middle sections of the thesis explore and refine in a more theoretically systematic way some of the central issues previously raised by considering insights which have arisen in the context of two broad and contrasting perspectives - loosely termed "rationalist" and "existentialist" respectively. The conceptions of thinking and understanding that each of these emphasise and their broad curriculum implications are developed. It is argued that as well as suggesting certain basic dimensions to thinking - the "calculative", the "authentic" and the "poetic" (distinctions taken originally from Martin Heidegger) - the considerations raised by these views need to some extent to be interwoven if an adequate account of what it is to develop children's thinking and understanding is to be achieved

In the final part of the thesis m re specific issues relating to the structuring and assessment of children's learning, and central aspects of the relationship between teacher and pupil n primary education, are explored in the light of previous analyss. Certain aspects of the National Curriculum at the primary stage of education are considered and some critical evaluation f some of its main features is offered.

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PREFACE

The intention of this thesis is to make accessible some work in ph osophy and philosophy of education on the nature of th nking and understanding to teachers and others concerned with the education of children in the primary age range. The topics of thinking and understanding are clearly important ones which lie at the heart of any worthwhile conception of education and human development as a whole, and one of the effects of the introduction of the National Curriculum has been to provoke a wide ranging re-appraisal of them. But what exactly is involved in their development, and what is the role of the teacher in facilitating it? The pursuit of these questions leads to further ones such as:

What is it to think, and to understand?

Are there significantly different kinds of thinking and understanding, and if so what is their value?

How can we help children to "think for themselves"?

How do thinking and understanding relate to conscious fe as a whole, behaviour, and our ways of relating to thers and the world in general?

Like anyone else who makes curriculum proposals, the authors of the National Curriculum make many assumptions regarding the questions, but perhaps n the interests of political

expediency and achieving quick consensus they have often preferred to eave them tacit and unexamined. To this extent their proposals remain unclear and unargued, possible errors and inc nsistencie remaining undetected. But to those wh really care ab ut the tr th and about how best to interpret and implement Curriculum in the educational interests of the the Nationa children in their care - and, equally importantly, about how to help it evolve in ways that are educationally desirable - these questions ha e to be acknowledged and pursued. Such questions form the focus of this thesis. They will lead us into fundamental issues concerning the nature of meaning in its different forms and the kind of education needed to allow individuals to develop qualities of reedom and responsibility. It will be argued that no matter what the stage of our involvement with the development of children, o contribute responsibly we must have a better than average awareness of the possibilities of human devel pment as a wh le and the world into which we are giving children entrance, and in which they must take up their place. No doubt ome of the issues involved are difficult, but I cannot but think that to shirk them - to s mply follow other people's prescriptions unthinkingly - is to do a grave disservice to the children in our care. Particularly when, as we shall see, certain aspects of the National nd possibilities of implementing it are so seriously Curriculum flawed.

Yet the overarching purpose of this thesis is not essentially to evaluate any one set of curriculum proposals however prominent they may be at this time. It does not aspire to be "current' n this sense and I have not felt constrained to give a

survey of a wide ra ge of t e latest research and discussion that might be held by some to have a bearing on the issues under debate. On the contrary, this has been deliberately eschewed to a large extent as it seems to me that such an emphasis is both unnecessary and undesirable. The key issues in the area are lon standing and are appreciated more through sy tematic reflection than through the acquisition of myriad research findings - the common effect of the sheer volume of which being to intimidate rather than stimulate thinking and understanding. What is required it is not yet more "evidence", but to perceive the significance of what we often in some sense already know. But this is perhaps already to anticipate one of the central themes of this thesis with regard to what actually counts as developing thinking and understanding in the first place!

One final point: for those who have little or no previous involvement with a philosophical approach to issues some of the views, ideas and names listed in the Contents and Bibliography may appear daunting. Such apprehension 1s understandable in the light of popular concepti ns of philosophy which depict it as unduly "heavy" and academic in the sense of being abstracted from the real concerns of life. But this conception is largely a caricature. Philosophy and philosophers, proper, have always been concerned with issues that lie at the heart of human consciousness and are readily recognizable as such by those wh are prepared to reflect on such issues for themselves. It is a central aspiration of the thesis to introduce some releva t thinkers and ideas in a way that makes clear their essenticentribution to the to ic of developing children's thinking and

understanding in the primary school. This will be done by relating their views to familiar situa ions and ideas and illustrating how they can enlarge and refine ur understanding of them.

It is hoped, too, that in this way a c ntribution to research will be made: in addition to providing some exploration of the complexity of the idea f developing children's thinking, the critique of certain aspects of rationalist thinking which has been prominent in setting out the general framework and agenda for the discussion of curriculum issues may be of interest to those working in the field of curr culum studies, as may some of the insights derived from what I have termed the "poetic" approach which have hitherto received little systematic attention. Taken together it is hoped that they make a contribution to developing a basis for the appraisal of aspects of a range of curriculum models and proposals, including a much needed critical evaluation of some central assumptions that appear to underpin the National Curriculum With regard to he latter, some f the details of this are explored particularly in the final Part in relation to issues of structuring children's learn ng, assessment, and teacher pupil relationships.

PART ONE:

THINKING AND UNDERSTANDING IN THE CONTEXT OF THE PRIMARY SCHOOL CURRICULUM

CHAPTER ONE

INTRODUCTION: WHAT'S THE PROBLEM?

It perhaps borders on the truistic to say that one of the central features that we have in mind when we speak of the development of a person is the development of their capacity to think and to understand. It is largely in terms of these capacities that, for example, we assess a person's ability to take responsibility for their actions and their lives, cope with new situations, move on to the next challenge, or contribute to a demanding enterprise. Indeed, it is largely in terms of the quality of their thinking and understanding that we judge their intelligence, their overall level of maturity, and sometimes their worth. Someone who can't or doesn't think about situations in which they find themselves, or whose thinking is confused or chaotic, is ill-equipped to deal with life and in extreme cases would normally be put into care.

Thus we don't have to go quite as far as Descartes' famous dictum "I think therefore I am" to recognise the centrality of the capacity to think to human being. And it is not surprising that amongst primary teachers at least - if not some politicians - it has become a commonplace now to denigrate in education the mere learning up of facts and theories, mechanical skills, and other people's views. Rather teachers claim to seek to develop

understanding of what is learnt, they want children to think about what they are dong, indeed they want them to think for themselves.

Without this underlying philosophy much current practice in primary scho ls would make no sense. The moves in mathematics teaching over the last three decades are a case in point. In the emphasis has been placed upon the "modern maths' development of mathematical literacy: a grasp of mathematical ideas and concepts - the "language" of mathematics - as against prowess in mechanica computation exercises. Similarly, the emphasis in the teaching of reading and writing has come to focus on gaining and communicating meaning, articulating ones own thoughts and ideas, expressing oneself and understanding the expressions of others. 1 And what is true for the "three R's" is even more true for many o her areas of the curriculum such as art, music, drama, project-work, science etc. where firsthand research, exper ment and discovery, discussion and the relatively free exchange of ideas are frequently advocated. Much of what currently goes on in schools would have to be regarded as at best inefficient, and at worst a scandalous waste of time if the simple accumulation of stocks of facts and mechanical skills was the overriding concern of education. And this, of course, is precisely the criticism that many traditionalist spectators of education have been making with increasing vociferousness. They claim that under the influence of "progressivism' education has indeed lost its way and that there is a pressing need to return to more didactic teaching aimed at clearly specified and measurable goals - a theme embraced by the authors of the National Curriculum.

On the one hand, then, there seems to be implicit in much recent practice a claim that certain approaches to teaching and learning are justified because they develop children's thinking and understanding. On the other hand, there is the vigoro sly pressed counter-claim that much of what has happened over recent decades in primary schools has been thoroughly misguided and has led to a serious decline in educational standards. The question is, then, how are we to assess such competing claims? And further, even if it turned out that so called progressive approaches to teaching were justified in terms of the quality of thinking and understanding they enabled pupils to deve p, should education be given this sort of emphasis to any high degree anyway?

A number of reservations have been voiced. For example, it might be said that there is more to the full development of a person than the development of their thinking and understanding - which has a rather intellectual ring to it. What of other facets of personal development such as the emotions, moral sensitivity, good habits and general character formation? Also, is there not a large body of practical skills and sheer factual knowledge that a person needs simply to get by in our society, and to meet the requirements of prospective employers? After all, is it not a central function of education to prepare children for adult life and the "world of work" - to enable them to make their contribution t the growth of our modern industrial and technological society? Might not an education that focuses on depth of intellectual thought and understanding be in danger of ignoring these ba ic

practical needs of many pupils and society in general? And now, since it would no doubt be over simple to assume that these aims are mutually exclusive, a further important question arises: in what ways, if any, is the development of these other qualities related to the development of thinking and understanding?

To make progress on any of these important questions one thing seems unavoidable: we must try to get clearer about what and understand ng are! - Not, I hasten to add, in the sense of expecting to arrive at some neat definition - the notions involved are much too subtle and complex for that - but in the sense of grasping more adequately the extent of this complexity and characterising some of its important aspects and their interrelationships. Only then can we be in a position to judge the contribution of thinking and understanding to other important human development and competing suggestions facets of regarding the aims of educati n. Subsequent upon our answers to these questions we may then be able to formulate guidelines and criteria for both the teaching approaches necessary to foster their devel pment in children and also suitably sophisticated and flexible mechanisms of m nit ring and assessment. These will be some of the main themes of this thesis. They are likely to lead us far and deep

However, before pursuing them, there are some important pre immary points that need to be made. The first is that not all the aims popularly attributed to education should go unquestioned either in terms of the degree of emphasis placed up n them or, indeed, their very interpretati n. Every educational

a m represents a value po ition that itself stan s in need of justification - it is expressing some view about the good life" and the "good society". It is encouraging one or other version of what is to be valued in life and in our social arrangements. And what constitutes the most worthwhile or fulfilling sorts of life to lead and the kind of society that will best allow these of flourish is a matter of considerable moral and political debate.

Take the previously mentioned claim that educati n should prepare for the world of work. It might be thought that this seems straightf rward enough: everyone needs to be able to earn a living. But questions of interpretation and emphasis would be very important here. "Work" in any society is always undertaken in a particular social/economic/pol tical context. f we consider this context in the case of our own society it clear y could not be taken as self evident that the value and attitudes f the 'marketplace" are the ones that should pervade education or life in general 2 Attempts to introduce such values into the caring professions and services have attracted large scale criticism, and presumaby few would dream of them forming an appropriate basis for, say, family life and the realm of personal relati nships as a whole. (They would also clearly be antithetical to longstanding educational notions of the pursuit of truth and beauty in their various forms for their own s ke, or the intrinsic enrichment they give to the life of the mind) We need to be abe to earn a living, but for many earning a living in our society is a means not an end. Nor, given that it s still true that the maj rity f the workforce is involved in repetitive and inte ectually undeman ng 1 bs can the world of work properly set the goals of education in any very extensive way. A piece of recent research has shown that for 87% of the workforce of one urban community the most demanding and skilful thing they did each day was to drive to work.³ And that of course gn res the significant number of 1 ng term unemp oyed.

Clearly preparation for the world of work as an educational aim needs to be carefully analyzed for its different interpretations and each of these need to be considered n terms of how they would relate to other, perhaps more central, educational aims connected to the full development of the individual person in a democratic society. Now it is largely beyond the scope of this work to systematically address these wider matters, but it is important to recognize that teaching and education cannot be dissociated from contentious issues relating ultimately to conceptions of the "good life' and the "good society" and we will unavoidably be drawn back into some of them during the course of our enquiries.

The second important point that needs to be addressed at this early stage is the following: does not the fact we now have the Education Reform Act of 1988 in place make any questioning of the kind that I am inviting a purely academic exercise? While it is my intention to examine some of the detailed implications of this Act in Part Four, it is I think important to address this particular issue concerning the role of the teacher a d others responsible for curriculum decisions within the primary school now.

The first important thing to recognize in this regard is that the framework that the Act provides is far br ader and less specific than the version of the National Curriculum which finds its way into schools at any particular time. This is amply evidenced at the macro level by the fact that subsequent Secretaries of State for Education have been able to change quite significant aspects of the National Curriculum such as the range and forms of assessment across the foundation subjects and the number and range of attainment targets in, for example, science without having to change the legislation. Thus the helpfulness of the National Curriculum in its various aspects is not a given, but something which has yet to be developed and demonstrated. Then again, at the micro level it has to be interpreted by those who are practically implementing it in a way that is to the educational benefit of the children in their care. That is to say it has to be seen something which must evolve in response to on-going professional judgment both within the classroom and, if necessary, in terms of its broader structure. Teachers as professionals have responsibilities for the future development of the National Curriculum at both these levels - though not of course exclusively.⁴ For the responsible exercise of such discretion on the part of teachers and other interested parties it is clearly important that they have thought through the underlying issues that affect the quality of children's learning for themselves. They need a basis of understanding which is independent of the National Curriculum in order to be able to evaluate it and to av id the excesses of dogma that accompany the ascent f a mon lithic orthodoxy.5

Yet there is a further important aspect to this issue. It will be argued that as it stands at the moment even for someone who felt highly committed to the National Curriculum it is simply not possible to follow t in any straightf rward way. This is n t only because in teaching there are too many variables involved for any recipe to be successful in all situations, it is because the National Curriculum c nta ns within itself many tensions and some outright contradictions For example, this seems to be most strikingly true with regard to its aspiration for depth and quality of understanding at the same time as a considerable breadth of pre-specified knowledge The achievement of both of these in anything other than token form is neither possible practically in terms of the time available, nor, it will be argued, logically in terms of the degree of openness that the development of real understanding requires. Thus such a teacher is still placed in a position of having to decide priorities and emphases within the set of requirements made by the National Curriculum. Here again professional judgement will be required which will need to be informed by an understa ding of the kinds of issues I have raised.

It is interesting t note here that this need will not be circumvented if - perhaps as a response to practical objections expressed by the profession - the breadth of content of the National Curriculum were to be significantly reduced. In such an event the problems of justifying what remained are likely to become that much more acute: Why precisely this and n t that? Also, if the scope of what is to be drawn on within the compulsory foundation subjects were to be narrowed, this would place renewed importance on the curriculum which lies outside them

the "whole curriculum" of which the foundation subjects were only originally intended to be a part. In this scenario then, the role of teacher discretion will therefore achieve increased significance in providing an ed cation that was balanced and best suited to her children.

Thus, notwithstanding the aspirations of some critics of the profession who have sought a "teacher-proof" curriculum and indeed possibly the hopes of some teachers themselves looking for a lightening of professional responsibilities, teachers have not yet been relegated to the role of mere operatives who mechanically follow instructions handed down to them. And as we will see, because teaching essentially involves a relationsh p between unique human beings there are many very good rea ons why a significant degree of professional autonomy and discretion will always be necessary if they are to do the job properly.

Let me now move onto a somewhat different but equally important consideration. It is this: though as teachers typically we have a particular involvement in one stage or facet of the education of a group of children, in order to do ur best by them we need to be able to place what we are doing in the context of their education as a whole. We need to be able to see how what we intend to do in one situation relates to experiences they have, or are likely to have, in other situations; we need to have a concept n of what we are building upon and where we are ging, ie., the possibilities and the impications of the experiences we are giving to children in the present. In other words we must develop as best we can an appreciation of the organic wholeness of a

life as experienced by any individual, for that is precisely what each child has himse f to come to appreciate at some p int if his education is to contribute to his development as an integrated pers n.

Now it is important to recognise that this demand is n t at all adequately accommodated by, say, looking back over what a child is supposed to have been previously taught or by knowing specified in different stages of the National the content Curriculum. This is because what constitutes organic life experience is not so much a matter of what is taught as what is learnt, and the quality of that learning. It was this latter point, perhaps, that was not sufficiently recognised by H.M.I. when over a period of some years they called for greater continuity and coherence in project work in the primary school and assumed that this would be chiefly provided by increasing the degree of pre specified structure in this area of work. This clearly seems to underplay the extent to which cont nuity and from the learner's point of view are likely to depend upon opportunities for him or her to influence the content and manner of what is to be learnt.6

As educators, then, it simply is not sufficient to have an expertise in the teaching of a specialism (even if we are employed as a specialist teach r), we must at the least have as full an understanding as possible of the part that specialism may play in an organic life. It follows that as teachers, we ourselves have need of a way of thinking and understanding that can give us this larger per pective, for this - the forming of organic life experience

- must be a case above all others where the whole is more than the simple summing of its parts. Amongst other things, I will hope to show during the course of this thesis the contribution that a philosophical perspective can make to this kind of thinking.

As a result of considerations such as those mentioned above we seem to be placed in the following situation: Primary teaching remains essentially problematic. The requirements of the National Curriculum have always to be interpreted in the context of unique situations. They are in any case confused in significant respects and therefore incapable of being implemented in any straightforward way. The detailed framework of the National Curriculum is itself evolving and teachers as members of a key professional group can and should influence this. Further, and in any event, teachers are themselves moral agents responsible for what they do. The fact that they can be regarded as filling a social role should not be allowed to blind us to their ultimate personal responsibility for what they do under its auspices: they are accountable not just to the system, their "line managers" etc., but to themselves and the children they teach. 7 Now these general aspects of the teaching situation raise many issues which the reflective practitioner cannot avoid. One of them will be how best can I develop the thinking and understanding of the children in my care? And how does this aspect of their education relate to and contribute towards other legitimate educational aims? No authority, no institution, can simply legislate the truth on such issues; this has to be discerned by honest and open reflection. Here, then, is the key problem that we will be addressing in the rest of this thesis.

Finally, a point concerning the strategy I shall be adopting in the pursuit of this problem. The topic of thinking understanding is vast. It is one which has been of abiding interest to thinkers over a very long period of time, and has therefore generated a wealth of views and perspectives and a body of literature whose size is commensurate with this. Not only would it be a task way beyond the scope of this work to attempt to produce an adequate survey of this accumulation of material, it is not possible here to produce examples which could even claim to be representative of its range. However in the spirit of my main intention these limitations may not be a disadvantage. By eschewing any ambition to "cover the ground" it is hoped that some depth of thought may be achieved, and by focusing on a limited number of contrasting perspectives (basically two) it is hoped that some central issues will arise in a relatively clear cut and manageable way which will invite, rather than overwhelm, the reader's own thoughts on the matter so that he or she may begin to formulate his or her own position.

Thus the approach taken is to begin by looking in a preliminary way at some very general issues relating to thinking and understanding and the curriculum in the next two chapters and then to take up some central problems raised in more depth in the remaining Parts. In Part Two we shall examine in detail some responses to these issues which derive from a viewpoi t currently influential in educational thinking and which I have termed "rationalist" because of its focus on the development of children's reason in its various forms. In Part Three we will

subject this approach to criticisms deriving from a radica y different perspective which seeks to reaffirm the importance f more intuitive aspects of thinking rooted in the development f children's direct awareness of their own individual existence a d felt involvement with things. This latter perspective I have dubbed "existentialist". In Part Four I shall be concerned to relate the discussion to the general social and institutional climate n which education operates in Britain today, particularly with regard to the requirements of the National Curriculum.

CHAPTER TWO

WHAT'S INVOLVED IN DEVELOPING CHILDREN'S THINKING?

In this chapter we will begin our reflection by asking some preliminary questions about the sorts of things we might ordinarily have in mind when we speak of developing children's thinking, and the ways it may relate to other aspects of a child's development. So, what counts as developing children's thinking? The following is a list of some possible candidates:

- they know more than they did before
- they can think what to do in new situation
- they can discuss or explain something that they could not before

they see something different

- they feel differently about something
- they can work s mething out for hemselves that they could not before
- they have s me new thoughts, fee ings, understanding, appreciation, awareness.

Perhaps the most obvious feature of each member of the list is that it seems to pick out something which is mental in character, that is to say it refers to something which in some sense affects or characterises the m nd of the child - the quality of his or her mental life. But it is important to note at this early point that to say this is not to deny that thought may also affect behaviour: an action can be more r ess thoughtful and our undertaking a

course of action will normally be related to what we think about the situation in which we re operating. It is important to recognise this, for it carries the implication that to develop a children's thinking may also be to develop - at least potentially - the quality of their actions. Indeed, since actions - as against mere bod ly movements such as twitches and reflex jerks - are purposive, ie., they involve the expression of intentions on the part of an agent, one of the chief ways of improving their quality precisely will be to improve the thinking which is involved in them. Much has been written in philosophy about the relationship between thought and action - too much for us to go into here - but that action in some sense involves thought is a critical point for education, and we need to say a little more about it here if we are to properly appreciate the implications of our investigations for teaching.

Thought and action

There are varying kinds of action, and several ways in which thought may be involved. While it may be obvious that thought is involved in certain clearly "intellectual" kinds of actions such as those involved in setting up a scientific experiment or playing chess, it is clearly no less involved in actions which are, for example, more physical such as playing tennis or football. While sheer physical capacity is of great importance in the e activities, such capacity alone will not d. We still evaluate perf rmance in these areas largely in terms f the degree f intelligence they exhibit vis-a vis achieving the goals of the game. Skilful play

remains largely a matter of thoughtful play. Thus we should not be surprised to hear trainers exh rting their charges to 'think about what they are dong, or to discuss matters of strategy with them. This is still true of sports where the emphasis is even m re clearly placed upon sheer physical prowess or stamina, such as athletics.

action the agent has to have some conception of what he or she is doing, and how he or she is doing it, and this involves thought in some sense. It also means that the action can be assessed for its appropriateness to the situation and its success in achieving its goals. It is true, of course, that once learnt some actions such as those involved in driving or dancing can become automatic or mechanical - through practice or habit they may become relatively thoughtless. But there are three important things to notice about this. Firstly, to say that thought is involved in action is not to say that we are always consciously thinking about an action either before, or whilst, we perform it. I Secondly, nonetheless we must have some minimal awareness of what we are doing: if a ked, we must be able to give some sort of acc unt of it in terms of what we are doing and why. To be unable to bring to mind any conception of what we believe ourselves to be d ing (which may or may not, of course, accord with how others perceive our action) means that we are not "doing" anything properly speaking, but merely caught up in certain bodily Third y, even with actions that have bec me movements. automatic, if we wish to improve them we need to pay attention to them again, ie. start to think about what we are doing. It is this feature of actions that makes them educable, as against merely being altered through some sort of mindless haping process such as reflex conditioning.

Acceptance of the claim that the quality of our thinking can affect the quality f our actions serves to underline, then, t e general importance f the development of a child's thought for h s or her education. This point is reinforced when we consider that there is yet a further respect in which the development of a person's thinking has been held to be central to their educational development - its relationship to the domain of feeling and attitudes.

Thought and feeling

In a way which somewhat parallels the claim that action properly so described involves thought, it has been claimed that emotions and attitudes also have thought at their heart.² For example, does not the ability to feel guilt assume that one has the concept of responsibility, which in turn assumes that one h s some concept of causality? These are concepts that children take time to develop as part of their own thinking. Further, if we consider such emotions as anger, fear, jealousy, does not each of them involve some sort of cognitive appraisal of the world? Does not anger involve seeing one's situation as in some way frustrating, fear as seeing it in some way danger us, ealousy a seeing it in some w y unjust in that we perceive someone else a possessing something to which we feel entitled? It has been claimed that it is this 'thought" element in em tion that allows u

to distinguish one emo on from another thus envy i distinguished from jea ousy in that the element of entitlement is missing in the f rmer.

It also llows the possible further refinement of emotions and the possi ility f ed cat ng them. For example inapprop iate fear of an object may evaporate when one learns that it is not actually harmful and inappropriate desire when one learns that it is. Of course there will always be counter-examples to this as in the case of phobias such as fear of spiders and addictions such as cigarette smoking. But there are two points to be noted here. Firstly, the fact that some appraisals are very resistant to change or that even when changed they are overridden by ingrained associations or overweening desire (thus our use of the language of "phobias" and "add cti s" in no way detracts from the claim that feelings can be evaluated for their appropriateness and that appraisals involved in emotions can be imprived - be better informed, m re sen t e e c., and that this provides a basis for the education of the emot ns. On this view developing sensi vity of emotional res onse will be largely a matter of helping children to achieve wider and more refined appraisals of situations eg, by putting themselves in another's shoes or noticing relatively subtle but significant features of a situation which they had previously overlooked (The LION is in a cage! ... The show-off is very lonely...The broken toy was unintentional... The big fast car the small one...)³ Suc pollutes the atmos h re more than considerations are perhaps pre-eminent in areas of education to do with prejudices and stereotypes. Information and discussion which, say, deepens appraisals of the potential of individuals

regardless of gender, race r age, and develops an appreciation of the significance of different cultural traditions is seen as contributing to the forma ion of more appropriate emotions and attitudes in these important areas.

Now it has been argued that this way of characterising emotional development puts too much stress on the intellectual and overlooks the way, say, mood can colour our perceptions and appraisals and how in general our affective state forms a backdrop to, and motivates, the way we apprehend the world around us.⁴ That there is a reciprocal relationship between thought and feeling - and the extent to which it is even helpful to separate the two - are ssues whose clarification must await discussion in later chapters, but at this stage it must at least be clear that thought and feeling are intimately related and that how we develop children's thinking may therefore carry extensive consequences for the development of their emotions. With this in mind let us now return to the question of what counts as developing children's thinking.

Criteria of development of thinking: the issue of standards in education

To what extent does the list of qualities at the beginning of this chapter adequately characterise the development of thought? In addition to their saying something about the mental l'fe of the child, they seem to share another general feaue. They each represent an achievement of some kind: the child has acquired some new capacity, disposition, or awareness. But does each of the achievements of itself denote the development of thinking? For them to serve as criteria in this regard clearly much will depend up n how they are interpreted.

For example, to take the first item on the list, would simply knowing more facts than previously mean that a person's thought had developed? No doubt in some sense it would be conceded a considerable mental achievement to have learnt off the contents of an entire telephone directory, or f r that matter the entire contents of The Encyclopedia Britannica But, useful as either of these mental feats might be in certain circumstances, would this necessarily constitute the development of a person's thinking? Or does this latter require something more, perhaps that such facts as they have learnt come to be seen to exhibit some kind of pattern, or have enabled the person to grasp or apply something which was previously beyond them?

Similarly, do seeing someth g differently, feeling differently about something, or having new thoughts and feel ng, themselves necessarily constitute the development of thought? Can any (new) way of seeing or feeling - any new thought - count as the development of thought, or could some be retrograde (eg., as when a child who previously thought decimal points to be significant in numbers now came to think that they weren't)? That is to say, to count as development do not such changes have to meet certain criteria of quality, ach eve some new, higher, standard? Indeed is not this idea of meeting relevant standards, in some sense, implicit in all claims con erning the development of

thought? In which case what are these standards and where do they come from?

This idea of thought needing to match up to certain qualitati e standards is perhaps what was really meant when thinking was earlier described as an achievement and perhaps suggests that to think well is something that has to be learnt, for are not standards matters of social convention, and therefore things one is born to rather than with? In which case are there not issues to be confronted concerning how these standards are to be se ected? This may not seem a very pressing problem in some areas such as mathematics, but in the areas of art, literature and morality problems are rarely far below the surface, and even in history, geography and science there are significant controversies concerning matters of interpretation and emphasis which would have implications for what would count as good thinking and theref re approaches to teaching at primary level. Whether commerce with the Third World is to be thought of as trade or exploitat on, the extent to which empathy enhances historical understanding might be cases in pont.

But, of course the issue of standards in education is much broader than this, and has been a focus for considerable public debate. For some years there has been much talk about the need to raise standards in the primary school - particularly with regard t the so-called "basics" of reading, writing, maths, and m re at ly, science. Notwithstanding the fact that many of the views popularly expressed concerning the rise or decline of standards have yet to be adequately substantiated by research

evidence, there are surely some very important prior questions to be asked ab ut the nature of the standards in terms of which the debate is to be c nducted.

Take an example which is currently very prominent in this regard - standards in reading. Is a good reader to be measured primarily in terms of ability to identify and pron unce words and provide standard definitions of them, or ability to engage with the meanings expressed through some kind of dialogue? In an interesting discussion of this point Victor Watson (1992) describes how he found many of the qualities of what he terms a responsible reader to be present in a group of reception class "pre-readers":

"Working with reception children in a school which has adopted an apprenticeship approach to reading has taught me that pre readers discussing a story shared with a sympathet c adult show most of the characteristics of a resp ns ble reader: they discuss the story, they I sten to their partner; they show an extraordinary awareness of deta, they relate the story to their own lives; they consider alternative versions; they make moral judgements ('That is a wicked picture! said about an illustration of Gretel shoving the witch nto the oven); and they make thoughtful decisions about whe her they want to reread the story or choose another Many of these 4- and 5-year-olds have become readers in this sense before they are readers in the more usual sense associated with interpreting print."

The force of this sort of observation is not of course to suggest that "interpreting print" is unimportant but to get us to que ton any assumption that it alone should set the st ndard as to what counts as a good reader For such an emphasis could well lead to incipiently good reader in the broader sense being "discouraged, or silenced, or side-tracked".5

Thus in the various areas in which children's thinking is to be developed there is a need to be alert to the nature of the standards being applied. Do they do justice to the qualities of understanding that we should be seeking to develop or do they represent an impoverished view? Presumably everyone who cares for education will support the endeavour to raise standards. But often the crucial first question to ask is this: Which standards should obtain and how should they be interpreted? Put this way, we are rapidly confronted with the underlying issue which is essentially at stake: the question of what is really to be valued in education and why. Clearly this is an issue which deserves careful analysis and reflection, but which is in serious danger of being conveniently obscured and short circuited by protagonists in a debate who speak as if educational standards are themselves unproblematic and the only issue is how to raise them.

Finally, let us return once more to our initial list, for there are two other things that we might notice about its members. Firstly, one of them directly refers to observable behaviour, whilst the rest seem to refer to things that have happened primarily "in the mind'. This perhaps alerts us to the possibility that thinking may be displayed in action rather than being present only as some sort of accompaniment to it. The skill with which a fisherman casts his line or a musician expresses the mood of a piece of music in the playing of her instrument might be examples of this - as may the way a child contributes to a discussion, reads a story or poem, applies paint or collage, performs in dance, drama, or P.E. etc. In this sense thinking need not be something that goes on only "in the head" and the way we teach and assess such thinking - the nature of the standards referred to - would need to be matched accordingly.

Secondly, some members of the list seem to refer to active abilities (eg. being able to work something out), while others (eg. having some new awareness, or feeling and seeing differently) have a more passive tone to them: they seem to intimate ways in which we may be affected by things rather than active upon them. This all perhaps suggests that we should not assume that thinking is any one thing, maybe there are radically different kinds of thinking which are organised around quite distinctive sets of standards.

This is certainly a commonly held view in education. Thus teachers sometimes speak of developing thinking in different subject areas, or they identify different sets of "thinking skills" such as "research skills", "communication skills", "interpretative" and "translational" skills Indeed it sometimes seems as if almost any situation which differs from another requires its own way of thinking. In order to understand what is involved in developing children's thinking, we need to sort out these issues, for we shall clearly be involved in a rather different kind of enterprise

depending on, say, whether thinking is basically of one kind, or many. We will now turn to this important issue.

CHAPTER THREE

HOW SHOULD CHILDREN'S LEARNING BE STRUCTURED?

The role of the teacher

The general point has been made that notwithstanding the introduction of the National Curriculum the teacher retains a responsibility for the organisation of learning opportunities within her class and also a wider professional responsibility to the overall character of education. As a prelude to the question of structuring learning it will be helpful to amplify the nature of this responsibility a little further.

Basically it comes down to this: because the teacher is the person who has to mediate the curriculum in the specific contexts which education occurs she must have a substantial interpretive and formative role to play. Not only is she generally in the best pos ti n to make informed judgments about the ability levels, concerns and interests of the children in her class, her own strengths and weaknesses, and the resources available, she is also the person who is most intimately involved in the interactive process of children's learning. She is the person who will have to respond to the myriad contingencies that arise on a minute to minute, day to day, week by week basis within her classroom. She is the person who has to make on going decisions concerning how to create and sustain an environment within which these particular children's learning will be most likely to flourish. Who else can decide when something is or is not "working' for a particular group of children at a particular time, at which point a

different approach should be tried, and what approach is mot likely to succeed?

In this sense, then, the curriculum always needs to be to some extent negotiated - always in part determined by the children's response to what the teacher presents them with. It therefore cannot be completely pre-specified in advance. Once it is properly acknowledged that it is what children learn rather than what the teacher "teaches" that constitutes the child's education even the most formal of teachers will have to be prepared to modify what they have planned in the light of children's responses to it. This is a clear instance of the important point made in Chapter One that teachers cannot be regarded as operatives mechanically following instructions.

There is, then, simply no escaping an area of professional decision-making that will clearly cover a wide range of aspects and will be at varying levels of generality. It will range from more immediate responses to, say, specific breaches of discipline and how to deal with a particular child's learning difficulty to wider policies concerning, say, general rules of behaviour and interaction and the best way of communicating certain broad areas of curriculum content. These are the decisions that ultimately determine the curriculum a particular child will experience: decisions made on the ground by a particular practitioner or school staff. And these decisions will of course reflect the understanding and underlying educational values of those practitioners. It is thus essential for the practitioner to have thought these through: to have developed his or her own

understanding out of which he or she can act intelligently in the face of changing circumstances. And this is not simply a matter of accepting proper professional responsibility for what one does, but takes account of another important facet of primary teaching. Given the level of personal involvement that working closely with perhaps thirty plus young people demands, it is likely that a teacher must feel a ubstantial level of personal commitment to the policy she is following - and feel she personally understands it - for it to be undertaken with the best chance of success and personal satisfaction. Teaching in a primary school is simply not something that can be successfully undertaken "at a distance'

Given, then, this important element of a teacher's professional responsibility along with other more general aspects previously mentioned, how are we to make a start on the issue of structuring children's learning? How can judgments in this area be given a me reasonably objective basis? It might be thought that one fairly brious possibility would be to look at pat or current practice free me initial guidance.

Past and current practice as a guide to structuring children's learning

Suppose we were to look at that relatively easily acce sible, albeit crude, indicator of how a child's education is being organised - the timetable. It would probably be one of the first things that someone enquiring about how children's work in the classroom was organ sed would ask about. Taking factors of the

kind outlined earlier into account, it is perhaps not surprising that despite the recent moves to introduce more uniformity into primary scho ls, if we were to look at the timetables for different classes in different schools we would notice some similarities and many differe ces. We would probably notice some differences in the names g ven to certain activities; we would certainly notice differences i terms of when they took place, and the amount of time devoted to them. For example one might find that something called "creative writing" was timetabled to take place regularly on Wednesday mornings at eleven o'clock for one clas, whilst in another, perh ps even in the same schoo, it does not appear at all. Similarly we may find that one class has "project work" for three afternoons per week, whilst another has none. Even such commonly regarded fundamental subjects as maths and language will appear as such on some timetabes and not others. Indeed some classes operate without any firmly fixed timetable at all.

On the surface there ap ears to be considerable disparity. But this appearance can be deceptive and ften covers an underlying curriculum which has m ny features common from one class to another. Thus it is no doubt true that language work and maths have always taken up a very significant part of the school week for every normal junior school class in the country, including those who do not have them labelled as such on their timetable, but, perhaps, do them during 'pro ect work'. The same may well become increasingly true f r science and the other so-called "foundati n subjects" of the National Curr culum. Now whilt this apparent disparity is n t merely a matter f different labels hiding comm n features (for whit we call somithing may

reflect how we think about it, and thus our approach to it consider the way "language' has been renamed "Engl sh' in the
National Curriculum), there is undoubtedly a signif cant element
of this. And then there is the other side of this coin: common
labels can hide different features. The diversity of practice that
might be going on under the label "maths' could be very
considerable, the emphasis ranging perhaps from d ing carefully
sequenced sets of computation exercises to engaging in
investigations, working with concrete apparatus, or playing a
mathematical board game or bingo.

This now leaves us with the problem: if the timetable is not necessarily a very adequate guide to the nature of the curriculum, what is? What are the basic considerations in terms of which children's learning should be structured and the curriculum can be properly understood?

One answer to this is that it is the different ways of thinking that should determine the underlying structure of the curriculum, for they represent the most fundamen al means by which we organise experience. Knowledge, skills, and techniques may all be important, but these are all to some degree the product of thinking, it may be claimed. They also require thinking - ie., have to be located in patterns of thinking - if they are to be understood and intelligently applied. So, are there fundamentally different ways of thinking which we employ to orga ise and make sense of our experience? And if there are, does it follow that it should be a central purpose of the curriculum to i itiate children into each of them?

If we look back over the way that learn ng has trad tiona y been organised into eparate subject areas such as Engish maths, science, history, geography, art etc., it would seem that there has been an underlying assumption that there are distinct a d separate ways of thinking that children should master. And at an intuitive level this seems to make sense: surely, one might say, there are important differences to be recognized between doing science and art, or maths and history? It is not merely that in object of our attention s often each of these activities the different - maybe, in maths its numbers or geometrical sh pes, in science its things in the physical world, in history its how we lived in the past, in art its beauty in its various forms - its the way in which our attention is focused that differs. It has been said that in maths and science we look at things "logically", whereas in art and literature we look at them "creatively" or "imaginatively". Another way in which this has been put is to say that maths and science are "objective", while art and literature are "subjective".

Clearly, then, at an intuitive and commonsense level there are a number of assumptions in play which would incline us to think that traditional school subjects represent distinct k nds f thinking, and insofar as it is plausible to see such subjects as derivative from the distinct disciplines of thought researched in universities and other institutions of higher education, the view would seem to gain further credence. But, of course, e eryday intuition and commonsense are strongly influenced by our wn socialisation, indeed they are largely the product of this. We, therefore, cannot be content to accept their deliverances

uncha lenged. And there are many questions to be asked in this particular case.

We might begin by noticing that even within some of these tradit onal subject compartments seemingly different kinds of thinking are taking place. Punctuation, composing or appreciating a poem, discussing the morality f a character in a novel or the under ying philosophy of its author, would seem to involve significantly different thinking capacities, yet might all feature in a series of "English" lessons. Similarly, observing and attempting to explain certain land or rock formations, exploring the nature and development of human communities or trading arrangements, and analyzing statistics on the economic growth of different world regions, while falling under the heading of "geography" encompass somewhat differing skills of thought. If this is so, that is to say, if what typically goes on within a school subject can lack hom geneity in terms of the thinking and understanding being drawn upon, it is clear that we would need to look elsewhere than the structure of the trad tional school curriculum in order to ident fy fundamentally different ways of thinking.

But perhaps this supposit on that there are distinct ways of think ng is itself an illusion. Perhaps, as Dewey has been held to claim, there is only one proper way of thinking: the scientific or pr blem-solving approach (Dewey 1933). The claim here is that, no matter what the subject matter, thinking essentially proceeds in the same way. Put very schematically, it goes something like this. Firstly there arises a sense of puzzlement in the context of s mething we are doing. We next try to formulate this into an

ident fiable problem. This is followed by an attempt to generate hypotheses which would solve the problem and thus remove our original puzzlement. And finally we set out to test these hypotheses to see which, f any, works. If we find that one of our hypotheses does work, then thinking has been successful to that degree, concrete progress has been made and we can move onto deal with further puzzlements. If none of our hypotheses work, then we attempt to generate further ones or reformulate the problem.

Now, it seems to me, that much of our thinking is something like Dewey's description, and this is true whether it be in the area of maths, science, history, or art. But it is far from clear that this account does not raise as many problems as it answers. Consider the following important questions:

1) This description may apply to much of our thinking, but does it apply to all of it? Is all valuable thinking a matter of problem-solving? What of contemplation, ruminating, daydreaming, revelation, reverie, wonderment, thanks-giving and celebration? And what of human dilemmas as against problems? The former are things which we may have to learn to live with rather than solve, and how best to live with them will not be accomplished by attempting to dissolve them through some problem-solving technique.

- 2) Does not this description itself incorporate different kinds of thinking, eg. the "creative" thinking involved in generating hypotheses as against the "deductive' thinking inv lved in testing them?
- 3) Despite the ability to describe it in common terms, are the thinking processes involved the same across subject areas? For example, is the capacity to generate hypotheses and see if they work the same in maths, as in science, as in interpersonal relations, or morality? Is mathematical creativity and critical acumen basically the same as when we speak of these things in the field of literature, say?

If we are to make honest progress on the issue of how to develop children's thinking we must try to give more careful answers to such questions than they often receive in much of the current public discussion concerning the nature of the primary including the merits or otherwise of the school curriculum National Curriculum and how schools should respond to it. For example we cannot simply assume that the Foundation Sub ects packaging knowledge best way of represent the understanding for assimi ation by children - this must depend upon whatever logic there is to learning and understanding and the structure of knowledge tself. At its inception Kenneth Baker claimed that the subjects of the Natio al Curriculum simply "choose themselves"¹, but what is, say, Technology" as a separate subject? What gives it its integrity and how is it to be d stinguished from science? And what of the many important areas of human experience and understanding that re not obviously represented as a F undation Subject such as moral understanding, drama, or philo ophy? In order to undertake the task of interpreting the National Curriculum in the way that is educationally best for the child en we are teaching such questions cannot be ducked. It is now time to turn to what I have dubbed the 'rationalist" perspective on developing children's thinking for some more systematic guidance on these important issues.

PART TWO: SOME ANSWERS: RATIONALISM AND THINKING

CHAPTER FOUR

THE RATIONALIST VIEW OF THINKING

'He who will not reason, is a bigot; he who cannot is a fool; and he who dares not is a slave." (Sir William Drummond 1585 - 1649)

Clearly, to grasp the perspective that rationalism has to offer with regard to the kind of curriculum that will best develop a child's capacity to think and understand - and how this relates to his or her general education and development - we need to get clearer as to what rationality itself means. Presumably it is a way of thinking that values the seeking and giving of reason, but what, precisely, does this involve, and what are its effects on thinking and the kind of understanding of the world that risults? I will try to provide some clarification of these issues by firstly drawing upon the work of some recent writers in the field, and then exploring the underlying ideas that emerge in more detail.

Some characterisations of rationality

In their Introduction to Philosophy of Education (1990, Ch. 6) Barrow and Woods characterize rationality in the following terms:

"It was Aristotle who first defined man as a rational animal, and he meant by this that man was to be distinguished from other an mals in that he had the ability to think, calculate or reason.

"Man differs from other animals in that he is able to act purposively, to plan, to choose ends and adopt means, and in that he is able to control his environment rather—than simply respond to it. He is able to memorize, to imagine, to foresee, to predict, to hypothesize. To use—the imprecise term which in common language includes all such activities, man has the capacity to think......"

'Clearly when people talk of aiming to promote rationality or to make people rational, they mean they want them to think well."

"a rational man is, by defin tion, one who approaches matters with a concern and an ability to assess them by means of relevant reasoning......"

This character zation is useful in that it makes quite explicit two important features of the claims that are made on behalf of rationality and its underlying nature. Firstly, it is clear that there is a tendency to equate rationality with **good** thinking, or indeed even with the 'capacity to think" itself. Secondly, it is clear that

rationality is not entirely neutral in its stance towards things: it has its own inherent purpose, viz, to evaluate them. Rational thinking, therefore, attempts to subject things to some kind of and control. This important, but has an scrut ny unrecognized consequence: since "to evaluate" is precisely to judge the fitness or quality of something in terms of some further more general goal or standard, rationality ultimately sees things from a perspective which subordinates them to something other than what they are in themselves. Some of the more serious implications of this are explored in later chapters, but the manner in which it is achieved is made plain in the following quotation from R.S. Peters (1972) in Reason and Passion:

"The most obvious and all pervading feature of reason is surely the transcendence of the this, the here and the now.... Explanation, planning, justification, all share in common this obvious characteristic. They connect what is, what is done and what is to be done with the past and the fu ure by means of generalisations and rules."

Reason works, then, by standing back fr m things, disengaging thought from the immediacy of what is present in the here and now so that it sees things in terms of their location in some more general explanatory or justificatory framework. This framework itself consists of sets of rules for classifying things and connecting the clas es of things so produced. Rati ality, then, produces for itself a certain kind of reality whose structure is determined by its classificatory rules. Peters then goes on to point

out that these rules have to be "public" ie. agreed and shared, so that anyone who kn ws them can check that they have been properly applied in a particular situation. It the presence of such public tests of correctness that can:

" guarantee objectivity and the escape from arbitrariness"

and it is for this reason that he regards science as "the supreme example of reason in action" and the physical sciences as:

"perhaps the finest product that yet exists of the sustained and controlled imagination of the human race."

It validates its claims through appeals to universal laws that, in principle, anyone can test.

Before bringing the focus a little more directly upon educational concerns, t would, I think, be help ul to refer to one more writer to flesh out further some of the general features of the operation of rationality, and its relationship to "good" thinking. David Pole (1972), in a paper called "The C ncept of Reason" writes:

"Reason is the sole route to truth, or the only non-arbitrary route."

As with the previous writers, there is the cl m that all good ('non-arbitrary") tho ght is subsumed under the heading of

rationality, and again, this latter is characterized by Pole through its appeal to rules and standards. It is these that are seen as both relating thought to reality (eg. as in judging that that is a dog), and relating one thought or aspect of reality to another, as in the making of statements such as "The dog is in he doorway" or "Dogs and cats are both domestic pets". Thus the fundamental units of thought are concepts - that is to say categ ries in terms of which we classify things in accordance with features they are considered to have in common, and of which such particular things therefore come to be regarded as instances. But thi of course, is not the end of the story: these concepts themselves belong to further conceptual schemes or theories by being subsumed under other, more general concepts than themselves (such as 'dogs' and 'cats' both being 'pets' or 'living organisms' etc) with all the additional elements of significance that this brings with it. In this way, rational thinking performs the task of bringing the "brute data' which we receive through the senses to order, organizing it by means of a net of interrelated concepts thr ugh which everything in thought is given a place, and therefore a meaning.

Thus central to the operation of rationality is the making of judgments. Good thinking is based on eeing how things in experience measure up to the agreed criteria or standards relevant to deciding membership of the various categories in which they might be placed. It is a matter of judging when something is an instance of a more general category and of judging the relationships between different categories.

So far this has a been couched in rather ab tract terms. Let me now give an example to illustrate these caims. Imagine entering a strange room for the first time. The curtains are dra n and your eyes take time to adjust to the lack of 1 ght. Slowly you become aware of certain barely discernible objects in the dimness. Now what they are in that experience - ie., what one understands them to be - will depend upon what categories you judge each of them to belong to. That long dark object over there - is it a bed or a sofa? Is that a pillow lying at one end or perhaps a cushion, and are those the ruffled sheets of an unmade bed or something else altogether? Clearly, one is here trying to define different aspects of the object to see if they match the requirements of one of the categories one has in mind. Your judgement on this will both define the reality of the object, and also, perhaps, the nature of the room you have strayed into: bedroom or sitting room. In turn, this judgement itself will set up a whole range of expectations concerning the other things in the room and wil influence the way you interpret - ie classify - some of the other dim shapes you can just pick out. For example, the large dark shadow in the alcove opposite might on the one hand be perceived as a wardrobe, or on the other as a bookcase. The point is, what the thing is is decided by the category it is placed in: its "one of those". Its significance, its value, indeed its very nature is determined by this classification. This might be powerful y experienced if, in the c ntext of the above example, while feeling our way around the edge of the darkened room we were to stumble upon a light witch and with some rel ef are able to

clearly identify the objects as falling int the familiar pattern of, say, bed, wardrobe, curta ns etc.

So, at its most fundamental level rational thought operates through seeing things as instances of categories. It makes experience manageable by organizing it in accordance with a complex set of public y shared definitions (ie. criteria, or standards). And these definitions determine what the thing is, if and how it is related to other things, and its place in the general scheme of things - that is to say its meaning. Thus a child cannot see something as a tree, a triangle, or a tragedy until she has learnt what counts as being these things - ie., the criteria by which they are distinguished. It seems to follow, then, that the categories - concepts - which a child can apply in experience will be fundamental in determining the kinds f experience she will be capable of having. They will determine what she can see, what she can feel, and what she can understand. That is to say the very quality of her experences.1

Now for the mo t part, this categorizing is totally implicit in experience, as in our unreflective use of concepts in our everyday going about our business, but sometimes this is all done very explicitly as in attempts at scientific expanation. For example the theory of evolution brings otherwise disparate phenomena such as adaption, competition, and gene mutation into relationship, and in so-doing gives them added significance Indeed each of these elements is itself a reationship between less abstract elements, "adaption', say, claiming a relationship between the physical or

behavioural constitution of the organism and its habitat. And so on down a hierarchy of ever more primitive elements in the explanation. (For the rational st, something of a parallel kind would be at the kernel of any sort f explaining - how else can connections between things be made than through linking them into conceptual schemes?)

Similarly, things change their meaning (and their value) as we re-classify them for new purposes. Again this is happening all the time in ways of which we are often not consciously aware, as when some subtle shift in our view of another person occurs over a period of time. But this, of c urse, might be far more explicit in the case of, say, a detective in the process of investigating a crime. Here as the investigation develops and new evidence comes to light, things and people may become radically re-classified and their significance radically altered. Thus an occurrence that originally seemed trivial may take on a new cogency, someone initially thought of as honest now seems dishonest, a sound alibinow appears fatally flawed etc.

The point is that throughout this process the meaning and value of the things under con ideration depends on two things: firstly, the categories in which t ey are placed; secondly - and this is very important - the purposes or motives that underlie our categorizing activity. Arguably, categories are not simply present - ready made and manifest - in the physical world, they are applied to the world by c n cious beings in the course of the r interaction with it. But such interaction always has a purp se, or

complex of purposes, which will heavily condition the kinds of categories that will be applied in particular experiences. Thus differing purposes may yield very differing views of the same phenomenon - what a child sees as a tatty toy an antiquarian may see as a treasure (and vice versa!) - and in this way our perception of things is never "neutral".2

Some broad considerations raised for teaching

This preliminary account of the operation of rationality in thinking leads t a number of general points with regard to the development of children's thinking. The first is that it makes absolutely clear what the central task of the teacher must be at whatever level: to help children to acquire an increasingly refined systems of categories for classifying things. If things only have their meaning and value according to the categories in which we place them, then clearly it is crucial that children learn the shared public rules and standards involved in doing this. This will be central to their very ability to experience things - and the quality of that experience.

This leads to a further point. Insofar as these standards are matters of social convention, which, for example, may differ in some regards from culture to culture, and since they are clearly very large in number (just consider all the things and relationships an adult in our society can conceive of), it would appear that they will need to be deliberately taught rather than

picked up by chance. This requirement seems to receive further support from the observation that a great many public concepts are not man fest on the surface of the world simply to be discovered by the use of the senses. For example, while a child may be able o see, hear, touch etc., and learn shared labels for, such purely physical properties as collurs, sounds, textures etc., and maybe allo physical things such a plants and animals, there are many categories whose defining attributes cannot be perceived through the senses in this way. One cannot in the same way simply "ee" such things as 'uncle, 'freedom', 'mu tiplication', 'atom', or even 'school'. Acquiring such concepts is more than - or not at all - a matter of observing physical properties, but a matter of grasping various abstract relations and social or theoretical purposes which will need to be explained by someone who already understands them.

Arguments such as these, then, seem to support the extensive (but not exclusive) use of instruction to demonstrate to children the relevant rules, standards and relationships; the provision of clear definitions and illu trative examples, followed by practice in applying what they have learnt to new experiences arranged by the teacher.³ Further - and arising from the observation that rational thinking is not neutral - it will involve getting children to understand the purpose which the use of certain sets of categories serves. Thus developing their thinking in the area of, say, science will not be adequately described in terms of them coming to know certain class f atory rules and standards, but will need o include some grasp of the nature of the enterprise

of science: its motive to provide causal expanations of phenomena. Some, at least tacit, understanding of thi would seem to be necessary if scientific concepts are to be intelligently applied in experience.

Now it seems to me that both so-called 'content" based and "process" based views of primary science are in danger of paying too little heed to this. Of themselves, neither factual knowledge nor acquiring so-called "skills" of observation, hypothesising, and testing etc., contribute much to scientific understanding unless they are taught in a way that conveys the character of the underlying achievements being sought: the quality of explanation and its purpose. For example the appropriateness and accuracy of observation will clearly be dependent upon an understanding of the sort of thing you are looking for and why. Similarly, the usefulness of an hypothesis will depend upon an understanding of the sorts of questions to ask in a particular context. That is to say there is a danger here of conjuring up the chimera of teaching a set of free-floating "skills" when what is really required is understanding - through which skills are em edded in an apprehension both of what in general counts as and motivates a scientific enquiry and the rationale of a particular investigation under way. Skills, conceived as specific abilities, remain "blind" if not underpinned by such understanding of the contexts in which they are to be applied. In a parallel way the same can no doubt be said for other curriculum areas such as history and geography where "knowledge' and "skills" talk sometimes d minate debate about what should be taught.4

It is clear, then, that the demands for the development f rational thought go well beyond the mere rote learning of facts and mechanical thinking skills. There may be an emphasis on instruction in teaching, but it will be of a form intended to lead to a certain kinds of understanding on the part of the pupil such that he or she is able to apply what they have learnt to the r experience in a coherent and publicly accepted manner. But there are perhaps some important questions being begged by the account I have so far given. Questions largely to do with the place of individuality of thought and the possibilities of individual discovery, invention, and creation in the development of thinking. Some exploration of these questions, and an examination of more developed and sophisticated rationalist perspectives in education which attempt to deal with them, will be taken up in the next chapter.

CHAPTER FIVE RATIONALITY AND THE INDIVIDUAL

In the previous chapter I outlined the way in which rational thinking operates by the application of publicly shared systems of classificat on to experience - ie. conceptual schemes - which themselves express certa n purposes or motives with regard to experience. We noted that the use of such schemes involves the application of shared rules and standards in accordance with which things are placed in their proper categories, and that this placement defines the th ng both in terms of its meaning and its value. We then raised some questions concerning the place of individuality in the development of thinking in the context of a view which places so much emphasis on s cial convention in the structuring of thought. By way of developing these important issues, and the way in which the rationalist view might deal with them, I would now like to refer to some central ideas developed by some recent thinker in the tradition. In considering these ideas, we will see how rationalism modulates the idea of human individual ty within a framework of social conventions such that the very idea of an ind vidual human mind comes to be seen as parasitic upon them. The first of these views develops this theme by looking at the relationship between the possibility of developing a person's thinking, ie., his or her mind, and his or her culture.

Michael Oakeshott: Ind vidual and culture 5

Michael Oakeshott's view of the relationship between the development of the human mind and culture is nicely summed up in the following claim:

"Human being has a history, but no 'nature'."

O keshott strongly believes that we are mislead if we think of the development of an individual human being as akin to a process of growth in which some inn te or settled nature unfold. He wishes to stress the point that human development is basically a matter of an on-going transaction between an individual and the human w rld, and that our indiv dual humanness is the product of a history of such transaction from birth. Now the important thing about this is how he goes n to characterise the human world. He makes the point that the human world is not merely a world of physical things, but of intelligibles, ie., understandings, significances, beliefs, ideas etc. Thus everything in a human world from everyday things such as chairs and postboxes, t institutions such as marriage and the family, or schools, colleges, and the H uses of Parl ament, are what they are according to the meaning they have within a social f rm of life. It is this shared way of liv ng together that forms the context and the material for the gr wth of any individual, determining both what is possible and what is valuable.

So of what, fundamentally, s this shared way of living composed? And how precisely does t enter into and shape the development of the individual? Oake hott suggests that at ba e our human world is made possible by a wide range of shared procedures through which meanings and significances are given and communicated. Over the period of our history we have developed, and continue to devel p, sets of social rule, conventions, and standards for discriminating and evaluating things. These shared procedures permeate and give sense to all aspects of our life, governing both thought and behaviour. They constitute our culture in its broadest and deepest sense and structure aspects of our lives as various as buying some breakfa t cereal to writing a will or offering up a prayer. It should be stressed at once here that this view f culture does not see it as static, but rather, to use Oakeshott's wn analogy, as an on going "conversation". In this conversation, which began with the dawn f human awareness, the languages of fee ings, sentiments, desire, recognitions, moral and religious beliefs, intellectual and practi l enterprises etc. interplay, constantly creating the parameters a d possibilities for human being. It is only through engaging in t s conversation, entering the interplay f these various language, that "self-disclosure" and "self-enactment" of the individual can occur. We find out who we are, and express ourselves, by participating in the sets of shared procedures (ie. "languages") that are our culture. All talk of human or individual potential presupposes this.

It can be seen, then, that culture, in Oakeshott's sense, is not a set of rigid formulae or recipes for hought and behaviour - in a

language one can say many things, though not anything eg. we cannot say with literal meaning that "justice is pink"). Rather, for Oake hott, culture is living, and represents invitations for engagement in the conversation of humankind. Through such engagement culture is continuously invented and added to. But where does this leave the individual? For we are all born into a culture, but not with a culture. Oakeshott is uncompromising on this: '..nobody is born a human being". If being human consists precisely in participating in sets of historically developed procedures, this is something that must be learnt, for:

" To be without this understanding is to be not human, but a stranger to the human condition."

Studies of so-called "wolf-boys' - boys raised by wolves from birth and who, when found, exhibited the behavioural characteristics of their surrogate parents - might be taken to amply demonstrate the truth f this claim.² Before we can proper y be said to have entered the human condition, we need to have acquired the basic social rules, conventions, standards, ie., procedures, that enable us to participate in and contribute to culture. Thus education must be seen as an initiation into this inheritance of understanding and belief.

This is not, however, quite the end of the story, for at this point Oakeshott adds an important caveat. Culture - these procedures, this conversation - is not to be equated with the talk and bustle of the everyday world whose current engagements and occupations are directed at more immediate results. Here, in the

hustle of consumerism, sensationalism, and passing fashion, n the blandness of mediocrity and preoccupation with immediate practical gain, Oakeshott believes that the true conversation has largely been f rgotten, abridged, and corrupted. Culture pr per our "civilised inheritance" - is largely unfamiliar both to the child and everyday I fe. Thus schools should be - as they were originally - monastic in character, places set somewhat apart from the everyday world so that serious and systematic study can go on undisturbed, and where:

' ... excellences may be heard because the din of worldly laxities and partialities is silenced or abated."

This concern for true culture to be "heard" by the child leads Oakeshott to reject both child-centred approaches to education and the notion that the basic aim of education is socialisation (ie. it should be dominated by what is considered to be "sicially relevant.) He fears that the former with its emphas on childrens interests will distort the enterprise of enabling engagement with what is to them, by definition, an unfamiliar inheritance of human achievement. (If it were familiar, presumably children would not need to go to school.) He fears that the latter with its attempt to make people "current" -attuned to the changing needs of a largely unauthentic society which has forgotten its 'civilised inheritance' - would be to sh'rk the central duty of a real education.

Now it seems to me that his view draws a numb r of important a pects of education to our attention which do more than simply act as a timely det rrent to any tendencie we may have towards either rampant individualism, or elevating the norms and immediate needs of modern society as a central g l of education. If the continuity provided by public traditions of thought give us a characteristically human world with it sense of security and purpose necessary for sustained engagement, they should not, and indeed cannot, be easily overturned. Rather they deserve a certain reverence which should be reflected in education.

This serves to extend, I think, a point touched upon towards the end of the previous chapter about the need for content and skills to be embedded in a context. When certain aspects subject are analyzed out and identified as central teaching objectives which are comprehensively set out in a detailed and systematic manner, there may be a tendency for them to be taught rather clinically in an effort to cover the ground in most efficient way. Oakeshott's view nvites us to see them in an altogether d fferent light - not just as curriculum subjects consisting of various components of facts, theores, concepts and skills - so many commodities to be delivered" - but as ho traditions which embody that which is of enduring value and which it is the sacred task of the teacher to initiate pupils nto. They are not simply to be made "fun' or "interesting' or relevant (indeed, on t s view they are the standard of what hould c unt as relevant), but to be conveyed as lving traditions with their own ethos, utlo k, and sense of il umination. Teaching must

reflect this by re-embedding the components that may have been analyzed out for planning and monitoring purp ses in a developing sense of the tradition as a whole, presumably by reference to the great themes, moments, and figures which comprise it and conveying something of the fascinations, enthusiasms, nuances, moods which lend it its living character and which it contributes to the greater "conversation' of which Oakeshott speaks.

In short, then, the overriding aim should be not merely for the various areas of the curriculum to be "encountered" or "delivered", but to be lived. As well as providing tremendous scope for the imagination of teachers such an approach of course, serious questions about how to provide a suitable curriculum framework, classroom organisation and teaching ethos at the primary level. But it is also strongly suggest ve of two aspects of the way forward. The fir't is that, given the character of what is to be conveyed, it would seem to speak in favour of some form of apprenticeship approach to children's learning. The second is that it could be taken as re-asserting the value of a perhaps currently oft-neglected but powerful source of motivation in education: emulation (in contrast to -but not necessarily in conflict with - competition, intrinsic interest, immediate relevance). These two aspects are clearly intertwined and I should like to say just a little more about them here.

It would seem that crucial to developing a sense of the life of a tradition is to work alongside someone who shares in that life. Someone with significant knowledge, insight, and "feel" for the area concerned and who exhibits this in their manner of going about things. While this does not necess rily support specialist teachers in primary schools it probably doe require teachers with specialisms, ie. strong abiding personal interests. Such role models can convey in a concrete and often incidental way the outlook and qual ties of the traditions they have become engaged with - for to some extent here we are talk ng about ways of life, or important constituents thereof. For this to happen, though, children themselves would need to begin to engage in the problems and not simply the solutions in an area and to be able to discuss their ideas both freely and under the guidance of those with relatively greater insight and feel, who could draw judiciously on their own knowledge and experience in a way that integrates the thoughts of their pupils with the tradition.

In the process of doing this it would, in addition, be important to begin to establish a sense of history, ie., that ideas have evolved, that certain basic themes have been of enduring importance and that "real" people have contributed to their development, bringing to bear concerns that are both perhaps sometimes unique to individuals, but also reflecting their personal circumstances and broader social/intellectual context. Such an initiation might begin to help children get their own feel for the underlying sense and direction of the aspects of culture with which they are engaging by, as it were, listening in" to previous parts of the "conversation", and to gain some appreciation of their impact on living a human life.

In the above ways, then, I believe that Oakeshott's brand of "conservative rationalism" has important insights to offer us in primary education. But it also provokes some significant anxieties in relation to the question about individuality in thinking from which this chapter took its start.

Clearly, on this view individuality and creativity can come into play only on the back of the acquisition of culture, and in the form of relatively minor modifications to it which its established procedures permit. Indeed, on this account it would seem that individuality need for the most part involve no modification of culture at all, but simply an adherence to certain alternatives as against others contained within that culture. Thus a person's individuality may largely consist in such things as his tastes in music and size in slippers which cumulatively mark him out as different to most others. And much of this may be determined by contingent facts of his own physiology, subcultural background, and events and occurrences in which he has happened to have been involved, which in turn will to some degree have been conditioned by his cultural milieu. Now the quest on arises: is the notion of individual that emerges here adequate to what we have in mind when, for example, we speak of "valuing each child as an individual" or of wanting to develop each child's "individual potential"?

While Oakeshott's account rightly reminds us that in large degree it is culture that provides whatever means that are available for expressing oneself, and that therefore a concern to develop individua potential must largely be understood in terms of initiation into the traditions that constitute culture, the que tion is surely raised s to why we should value any particular individual portra ed as this rather arbitrary combination of possibilities as against his or her culture as s ch. That is to say, is there not a danger of this view inclining us to see and value individuals basicaly as representatives of their culture - and perhaps as potentally significant contributors to it - rather than for themselves? (With regard to the latter, the temptation to give a relatively specialised and accelerated education to child "geniuses" might be a case in point. In a more general way the dangers of cultural stereotyping of individua or of subordinating the feelings and real aptitudes of individuals to what is currently culturally valued can be very real - for even "high culture" can have its fashions and paradigms that preclude other worthwhile possibilities.)

What seems to be seriously underpayed in Oakeshott's account is the sense of the child as an ndividual centre of consciousness exhibiting personal agency - which is perhaps one of the most striking things about, for example, walking into an infant reception cass! In emphasizing the sense in which the human condition is something to be achieved rather than innately present, Oakeshott gives education a heavy future orientation in which perhaps r ther too little attention may be given to individuals as they are **now** as compared ith what they may have the potential to become in cultural term

We are, then, back with the problem as to in what true individuality is taken to consist, and how we are to understand aspects of a person's life (if any) which are not obviously to be accounted for in the terms invited by Oakeshott. This is underlined by what is perhaps a serious problem concerning Oakeshott's implicit distinction between the public procedures which he stresses and the substantive ideas, beliefs, sentiments, behaviours etc. which they generate. That is to say, is Oakeshott having to assume a hard differentiation between the form and the content of a social way of life? If he does, can it be maintained? (For example, do not procedures themselves partly consist in substantive ideas and beliefs produced by prior procedures, and indeed, do procedures have the logical priority over ideas etc., that Oakeshott seems to assume?) If he does not, ie., if acquisition of culture involves the acquisition of a large number of detailed and substantive beliefs etc., would this not be so constraining as to rule out the possibility of anything that we would want to recognize as the expression of individuality, for now not only the form, but the detailed content of the "conversations" in which human beings par c pate would be predetermined? This whole area seems to raise starkly the issue of just what independent thinking consists in, and its relationship to the social conventions which structure the status quo. To pursue it, we will need to give some consideration to certain aspects of the thinking of one of the most influential mainstream philosophers of this century: Ludwig Wittgensten

Wittgenstein: Rules, meaning, and freedom 3

One of the contributions that Wittgen tein made to our understanding of issue in this area was to intr duce an analogy between human activity and games. One form of human activity is that of understanding 'tself, and Wittgenstein began by trying to characterise the conditions under which we would be prepared to say of someone that he or she understood something - or had the concept of it.

Suppose we wished to teach a child the dea of a number series such as that formed by the three t mes table. Perhaps, amongst other things, we ask the child to colour in this series on a one hundred number square. Maybe at first she colours numbers in a relatively random manner, but with further guidance colours them as follows: 1,3,5,7,9,11,13, etc. Here the numbers have not been coloured in a simply random fashion, but have been coloured in a way that incorporates a systematic mistake - the child has "counted on" according to the logic "1,2,3 - 3,4,5 - 5,6,7" etc. It's not that the child has no understanding, rather she has a misunderstanding - which is a very significant step towards a proper understanding. Perhaps the teacher now explains this mistake and gets the pupil to colour in the first few correct numbers. Now should we at this point say that the child has understood this series of numbers? Wittgensten says no, to demonstrate this she must colour more of the series which she has not been shown directly how to do by the teacher The point here is that it is only when a person shows themselves able to carry

on independently in new situations that we would be prepared to say that they have understood. Parallel examples could be drawn from the area of language such as the learning of punctuation, or the past tense ("I catched, "I fighted"), or the acquisitin of new vocabulary where a child uses a new word slightly inappropriately, its meaning being understood in one context on y. The general point being that many mistakes are stages in the growth of understanding, and that this is considered to be achieved only as the child develops his or her own capacity to respond correctly in new situations.

But, now, in what precisely does such understanding consist? Is there some specific underlying feature that lies at the kernel of this capacity to carry on independently in new situations? The kinds of example we have been describing are taken to show us several important features concerning the general nature of understand ng.

The first of these is that understanding cannot simply be some private inner mental occurrence such as a sudden feeling or flash of insight. Clearly we could experience such a feeling but not really have understood. Someone's crying "Aha!" or "Yes, now I see!' cann t be taken to guarantee that they've got the right end of the stick. But if understanding is not to be equated with some private feeling, nor is it to be equated simply with public be aviour. Surely, it is not the actual behaviour of "carrying on" itself that constitutes understanding, for, to take the number series example, we would not assume that understanding suddenly ceases the moment the pupil stops writing. Nor would

he need to actually continue the series ad nauseam in order to understand how this would be done. Thus behaviour may exhibit understanding, but cann t be equated with it. So what is understanding itself? Witgenstein suggests that the child's understanding simply con ists in her being able to follow a rule. She has acquired the capacity to think in accordance with a guiding principle, by reference to which she is able to distinguish c rrect and incorrect ways of proceeding. Further this capacity is not a quality which is added to thought, it constitutes thought itself. Thought (and understanding) is this capacity of linking things together and distinguishing them from other things not in some random or arbitrary way, but systematic ly, ie., in accordance with a guiding rule.

Now it may at fir t blush seem that this notion of thinking and understanding as a matter of rule-following s somewhat unremarkable and almost too simple and innocent to warrant much further attention. But actually a little furth r reflection reveals some very significant implications which have wideringing ramifications. To begin with, it carries the following important corollary: thinking and understanding are essentially public in character. Whether a person is following a rule is not in principle a purely private in subjective matter, it is an essential part of the nature of a rule that all who know it are in a position to decide when it is being followed. Further, even for a person in ents a new rule for him elf, and does not tell other what it is, we take it is not prely a matter of subjective whim as to we obtained to entire the priviled invents.

a rule, say, of behaviour for himself and then ends up doing something else, no matter what he, himself, might believe or wish he simply is not following his own rule. Indeed in some circumstances, if others were to infer from his previous behaviour what his "secret" rule was, or he were to divulge it to them, they may on occasion make a better judgement as to whether he is f llowing his own rule than he can.

The point is, that to follow a rue is to have a standard of reference which is in a very significant sense independent of oneself, even if it were ones own invention. But there is a second point to be made. The vast majority of rules which are important in human life are not only public in principle, they are public in fact. The whole of social life, including language and the accumulated knowledge and understanding of a culture, is based on a structure of publicly shared conventions, ie., rules. Without this we would not even be able to c mmunicate with others, to convey or compare our experiences Thus, on this account, thinking and understanding have a str ngly public and therefore objective character (because of the way shared rules enable comparisons to be drawn and others to check on what one says, and their development in an individual will precisely consist in acquiring more such shared rules for the structuring of thought.

So far we have taken as our starting point a fairly simple case: the understanding of - or having a concept of - one particular thing. But what of the who e bodies of understanding we began to make reference to in the last paragraph? How are we to characterize, say, the disciplines of maths, science, history, etc

to which schools wish to ntroduce pupils (even if in many primary schools they are not necessarily taught as separate subjects, but through an inter-disciplinary approach)? It is at this point that Wittgenstein's anal gy with games has been thought to be illuminating and will he p to illustrate many of the points stated in more abstract form above. The point about games is that they are quite explicitly rule-structured activities, and herefore if we examine the way that they function we will gain nsight into the way aspects of human life which are more tacitly rule-structured operate.

Suppose we were to witness the following incident. A number of men wearing shorts are running about on a field seemingly chasing a ball. The ball passes between two white posts with a bar across the top, and this is immediately followed by the sound of a whistle emanating from a figure dressed in black, whose shorts are a little longer and baggier than these of the other members of the group. He then raises his arm, whereupon a number of the men begin to embrace each other while others stand dejected or begin gesticulating at the black figure Someone unfamiliar with the rules of this game may wonder what all the fuss is about. The events that he has witnessed can on y take on their significance for him when he gets to know the e rules. For example that the object is to get the ball between the posts -but not n any old fashion - there is to be no handling f the ball, nor deliberate obstruction of opponents, and the ball has be kept with n the white lines which mark the perimeter of what is called the pitch" etc. It is such rules that structure the activity, give it its purpose, and make it the activity that it is. They indicate which

particular events are important - f r example, one goal-keeper stamping to keep warm is not important while the other div ng for the ball is; they determine how things are to be classified eg., as "goal", "foul", 'offside"; and how things are to be done, such as the taking of a free kick or a throw-in. Importantly, it follows from this that the rules will also determine the meaning of the terms and statements relating to the activity and how one would verify them. For example the meaning and truth of the claim "That's a goal!" is not a subjective matter, it will be determined by the relevant rules. And, of course, what is to count as important, as success, as true or false etc. will be different for other games. Goals are scored differently in Rugby football, and not at all in chess.

Now the claim is that much characteristically human activity - including the pursuit of truth and understanding - is structured by complex sets of rules in ways ana ogous to games. Thus to take the "game" of natural science, it can be seen to be structured and given its identity by its distinctive body of rules. The rules determine what is to count as a scentific explanation - that it must ultimately be testable against observation through the senses; the rules determine what counts as a satisfactory scient fic experiment eg., that there should be controls, that it should be repeatable; the rules determine what data are significant eg., the scientist's subjective wishes and feelings are not relevant; the rules determine the manner in which scientific observations and conclusions should be written up, and so forth.

But as well as these rules of procedure, there are wat one might term rules of content, ie, the rules used to organise and classify the content of experience in shared ways, to which we have made previous reference. Thus as well as its distinctive procedures, science has its distinctive concepts such as those of 'causality', 'energy', 'velocity' and webs of concepts such as the theory of evolution which give direction to the enterprise as a whole, or particular aspects of t, and thus delineate the terrain within which the scientist works. So to understand what a scient st is about requires an aw reness of such rules, and to learn to do science is to learn how to apply them in ones own experience, ie., to learn how to "play the game".

Similarly, just as there are different games to be played in the conventional sense of that word, so the search for truth and understanding in different areas, ie., the different disciplines of thought, might be thought of as comprising different games: different sets of rules constitute different forms of rationality giving rise to different kinds of knowledge. Here, then, we seem to have a fundamental basis for distinguishing between differing forms of thinking and understanding, but before we go on to consider how this view has been developed in the context of education and its curriculum mplications, let me summarise where we have got to and also make a preliminary point about the nature of freedom and independence of thought on this view.

Summary of rationalism and some implications for freedom of thought

We have been exploring a rationalist view of the nature and devel pment of thought and understanding, and it seems t have the following centra characteristics:

- 1) thinking consists in our organising experience by defining its different aspects in terms of systems of categories;
- 2) we do this by judging the ways in which these aspects meet the standards, ie., rules, which determine what counts as a member of a certain category;
- 3) these categories form complex webs and theories, and the meaning and value of the different aspects of experience that we articulate by means of them is determined by the place that y are allocated in the web.
- 4) they give structure to living traditions of though and awareness which form our "civilised inheritance" and contitute what it is to be human in the full sense:
- 5) these webs and the procedures that give rise to them and are used to validate them operate in a way analogous to game they are governed by rules which are in principle public, and in fact largely shared within a community;

- 6) it is t s public and shared feature of the rules which gives objectivity to the enterprises which they govern, a d makes communic tion possible;
- 7) each o the distinctive games that it is possible t distinguish constitutes one of the forms that rationality can take.

But what, now, of the following fundamenta object on to all this: name y that it presents such a highly conventi n based view of thinking that the notion of **freedom** of thought seems to be quite redundant; that rather than de cribing the development of an individual's capacity to think, this view presents us with an inhibiting strait jacket from which the ught would need to escape? To this the rationalist seems able to make a number of replies.

The first is that at a very fundamental level with ut rules of thought there can be no freedom of thought for there would be no thought at all. To return to the games analogy: without the rules of the game of football there is no game of f that and for someone to claim that their freedom s curtailed by these rules is simply for them to say that they do t wish to p ay fo thall. Of course, the may wish to change some of the rules, but this is to accept the vast majority which form the necessary context against which changes would have a sense, and requires that t ey gain the agreement of the other players to follow he new rules. Freedom here, then, still consists in following rules - albe t, including a limited number of new ones; indeed th's example shows that freedom consists not in abandoning rule, but precisely

in deciding which rules to follow. For someone to say they will accept no rules is for them to refuse to p ay any game in which case their "freedom' becomes a commitment to nothing.

Now, in the same way, the rationalist can argue that for someone to say that rules of thought - ie., any rules of thought - denies their freedom of thought is for them to reject thought altogether (which, of course, they have on y been able to do by means of thought for, if the analogy with games holds here, they are rejecting the basis upon which thought achieves its structure. So here again, freedom consists in following rules, not rejecting them, for it is the rules that provide the different possibilities of thought - different "games" through which, and between which, we may exercise judgement and choice, and thus express ourselves.

But suppose someone intent upon avoiding the aspect of conventionality that this argument s ems to wed to thought were to say: "Very well, I accept that my freedom of thought is only possible through, and consists in f llowing, rules of thought, but this does not mean that I have to fo low the publicly shared ones - I will follow only my own idiosyncratic ones". While, theoretically, this would no doubt be possible to some degree -and perhaps even then only a relatively small degree, given the background of language learning this decis on itself presupposes - such an aspiration would seem to be an expression of pedantry rather than any good sense.

To the extent that an individual ucceeded in f llowing rules that were n fact private, he would have cut himself of from his fellows (since communication is by definition only poss ble on the basis of shared rules), and would be unable to aval himse f of anything th t his culture had produced. His "freedom' w uld then consist in thinking in accordance with the very li ted and isolated rules he was able to invent f r himself and enriched by nothing outside his own narrow experience. Such an end could hardly be the goal of education, nor could it constitute what an educator could mean by the development of independent thought, though the ability to think beyond (rather than without) currently shared rule structures may be. But this would invo ve a certain mastery of these rules rather than ignorance of them, and would be the way in which a person working within a culture might extend it. Here, then, inventiveness and creativity, freedom and independence of mind, would occur not through a re ection of shared rules and standards, but on the back of them Thr ugh transforming rules from within the great public tradition - using their own rule-governed critical pr cedures - the rationalist would claim, veritable quantum shifts in the foundations of thought have been achieved - to wit the thinking of C pern cus, the 'Enlightenment', Newton, Darwin, Marx, and Einstein.

In the presence of such illustrious company, and given the weight of previous argument, would it not be churlish to press the freedom of thought issue any further? And yet.......

CHAPTER SIX

RATIONALITY AND LIBERAL EDUCATION

We have now considered the main foundations f what I am terming the general rationalist position and it is time to look in a more systematic way at some deta ed implications f this view for the development of thinking and understanding in the context of education. Traditionally it has led o what has become known as a "liberal education', and I propose to consider two versions of this in order to indicate something of the range of views and issues that the rationalist position embraces.

P.H.Hirst: "Forms of Knowledge" and liberal education

One of the most influential views in the literature of philosophy of education and curricu um theory in recent years is that of Paul Hirst. He has cla med that there exist a number of fundamentally distinct ways of structuring and exp ring human experience which constitute the bas's for all rational thought, and which are therefore central to the mental development and education of any child. This thesis s, perhaps, so well known that one is hesitant to give yet another exposition of t, but both because of its wide influence and (equally important from our point of view) because of its clear expression of what I have identified as the central themes of rationalism in the educational context, some rehearsal of its man elements is appr priate here. Building on the ideas of Wittgensten and Oakeshott, and the way in which human activity in its many manifestations can be

considered to be rule governed, Hirst clams to have di tingui hed around seven I gically distinct f rms in e heritage of knowledge and understanding as we have it today. These represent the basic ways in which rationality operates in its endeavour to experience and understand the world, and each, to return to Wittgensteins analogy, is a game" with is own peculiar set of shared rules and standards f r d ing this. We have already indicated the way in which the activity of science could be seen like this, and indeed along with maths, knowledge of persons, morality, aesthetics, religion, and philosophy, this constitutes the current list of the forms of knowledge as discerned by Hirst

Before examining the differentiation of these forms in more detail, it is worth saying something about their nomenclature. They have variously been referred to by Hirst as "forms of knowledge", "f rms of understanding", "f rms of thought', "forms of rationality", 'forms of experience", and "forms of awareness", and while it would perhaps be premature to assume from this that Hirst simp y equates these terms, two things are clear: the forms are cognitive/intellectual in character. characteristical y human experience presupposes them.² This thesis, then, unreservedly places the development of the intellect at the centre f the development of the child's consciousness emotions, attitudes, dispositions, sensitivities etc., all being parasitic on the different forms of intellectual endeavour for their structure. (We might recall here, for example, the sect on on 'Thought and f eling' in Chapter Two in which it was suggested that what we feel is heavily dependent upon how we perceive a

situation ie. the beliefs and understandings we bring to bear on it.)

But what is it that individualises each of the forms? Consistent with the notion of them being forms of intellectual endeavour, each is essentially seen by Hirst as producing its own unique kind of statement about the world and consequently - and this is very important - has its own peculiar method of testing for their truth or falsity. Indeed, for Hirst, how you test for the truth of a statement appears to be closely bound in with its very meaning. He might ask what could even simple statements such as "The grass is green" or "2 + 2 = 4" mean if we had no idea of how to go about checking their truth ie., we didn't know what would even count as being such a check? This is a central point and we shall examine some of its consequences presently. For the moment we can summarize by saying that each form of knowledge investigates and reveals reality from a unique per pective whose essential character is given by its fundamental concepts and truth tests, and has generated over the course of its historical development conceptual schemes and procedures - ie., a detailed set of rules - for structuring the whole enterprise.

Let us now consider two examples that seem to match this description quite well. The truth of the statements of mathematics is tested ultimately by reference to whether they can be deduced from certain basic axioms of a particular mathematical system and the statements themselves are founded on certain fundamental concepts which are peculiar to mathematics, such as 'number or 'matrix'. Though we may teach, say, number bonds

through the use of concrete apparatus, the mathematical statement "2 + 2 - 4" is true not because of anything about the physical world, but by definition. If we c anged from base 10 to base 3, "2 + 2' would not equal "4", but 11". Counting concrete objects is an application f the number ystem, and while it is certainly true that if we look at: * * * * we see 4 stars, this has no bearing on the mathematical truth of the tatement: "2 + 2 = 4"(in base 10).3 In contrast, the statements of the sciences do make claims about the physical world and therefore are assessed for their truth or falsity not, ultimately, in terms of their compatibility w h a pre-specified set of basic definitions as in mathematics, but through their compatibility with observations made through the senses and guided by such fundamental concepts as 'causality', 'energy', 'gravity, 'evolution'. Unlike mathematics, th n, scientific understanding constantly changes as a response to new observations of the physical world. It would seem that if something substantially similar can be said about the distinctness of the other members of Hirst's ist of forms, he would indeed have identified a number of irreducible ways of making sense of experience and communicating it.

Now the extent to which Hirst is right about this is of the greatest importance with regard to the issue of developing children's thinking, for it goes to the heart of the issue of the basis upon which we make and articulate judgements - the basis upon which we decide what is true or false, good or bad, and communicate this to others. Consider the following statements:

That's a g od painting because I like t"

"It was a poor film because the hero didn't win."

"It's wrong to kick people because its not allowed here."

"It's wrong to hurt people because God said so."

'It's not fair that lions eat the o her animals.

"That's a square because it's coloured blue."

"The answer is eight because eight has a nice shape to it"

'He looks ugly - he must be wicked."

"Plants grow towards the light because Miss Jones says so."

"Evolution can't be true because the Bible says so.

Some perhaps have a familiar ring to them, some are understandable, some a little bizarre, but arguably - and I know in some cases this will be contentious - from the point of view of Hirst's thesis they all have something in common wrong with them if taken I terally. Taken literally, they each exhibit an inadequacy of judgement and this inadequacy arises not so much because of having wrong factual information as through applying inappropriate criteria - they refer to the wrong kind f evidence - apply the wrong test for truth".

It may be perfectly true that "Miss Jones said so" but this is not the sort of evidence upon which to base a scientific claim, the fact of someone's being ugly is not an adequate basis for judging their moral character, sheer personal preference is not an adequate basis for judging the aesthetic worth of a painting, and so forth. Often the inadequacy arises, to put it in Hirstian terms, because, embryonically, criteria are being drawn from the wrong form of knowledge: aesthetic to make a moral judgement, religious to make a scientific

judgement, moral to make an aesthetic j dgement, physica r aesthetic properties to make mathematical judgements to Fr m the point of view of the forms of knowledge, qualitative y dis not kinds of truth are being hopelessly confused and consequently t e very meaning of the statements becomes pr blematic. What kind of understanding of number and number bonds would a child have who felt that the shape of a number should determine the answer to, say, an addition sum? Thus a vit I aspect in developing a child's thinking and understanding will be to help him distinguish between the different kinds of truth and to learn to apply the standards and criteria appropriate to each.

Now there are a number of aspects to this. It will, of course, partly involve acquiring the relevant concepts so as to grasp, for example, that physical properties like colour are not defi ing characteristics of mathematical shapes, that wild animals are not really the sorts of things to which it is appropriate to apply concepts like fairness. But importantly, it will also involve t em learning to apply distinct objective procedures, the pub cly agreed ways of test ng for truth in the area concerned, for surely we are involved in a rather different - 1e., qualitatively different - kind of enquiry in, say, deci ng the motives f r William's invasion f Britain (knowledge f persons) what is great about a Beethoven symphony (aesthetic); whether washing powder is better than another (sc entific); how many prime numbers there are between five and f fty (mathematical); whether its worse to hurt someone than to steal fr m t em (moral) how God wants us to live our lives religious); what we mean by "happiness or freedom" and ho important they re

compared with, say, being truthful, or responsible (philosophical). Attempts to explore experience, make judgements, test ideas, justify views, prove or disprove claims and pinions on such issues involve the use of distinct sets of criteria and standards. To hark back to the analogy of the previous chapter, they are "games" played by different rules. Thus, to take a recommendation I once encountered while attending a teacher in-service course on "Science across the curriculum", would it not be not merely incongruous, but downright incoherent to write up a scientific experiment as a poem? The distinct qualities which each seeks to exhibit simply seem not to be compatible.

Where, then, do these considerations leave us with regard to the curriculum and the child's education? And what are their implications for the development of children's thinking and in particular their independent thinking? Put simply, if the forms of knowledge are fundamental to thinking and mental development in the way that Hirst describes, it would seem ssential to try to initiate every child into each of the forms. Anything less would be to cramp their development in an arbitrary way - to deny them the capacity to enter the full gamut of human understanding and experience which would both enrich their lives and upon which it is necessary ultimately to draw in the making of important practical everyday and larger life decisions. Further, genuine independence of mind (as against mere contra suggestiveness) and constructive imagination a d creativity, would be achieved by learning to play these fundamental "knowledge games": ie., learning the characteristic forms of expression, conceptual schemes, truth tests, and procedures for each of the forms. For

only upon this basis would an individual be able to assess the claims of others and generate his or her own understanding - as against being the passive receiver of other's views - and only on this basis could his or her imagination and creativity receive rational structure.

This last point is of utmost importance. Contrary to what sometimes seems to be assumed in discussions about the purposes of education, on Hirst's view there can be no general mental powers - such as, say, the capacity to think logically, or critically or creatively - which could simply be developed in their own Like all other aspects of thought, mental powers must right. derive their structure from the particular form of rationality within which they are operating: there is mathematical creativity, scientific creativity, philosophical creativity etc., but not general creative power as such, unless this term is simply used summatively to refer to a person's having developed a number of distinct creative capacities. Being critical, creative, ingenious etc., is a very different activity from one form to another because they are structured by different sets procedures and standards and we would be quite wrong to assume, then, that the development of these capacities in one area will transfer to another. People could be and some are creative mathematicians and pedantic poets.

Of course, to acknowledge the existence of such distinct forms of knowledge is neither to say that they may not interrelate, nor that necessarily they should be taught in separate timetable slots. To take the first point, whilst it may be true that

one might have a rich aesthetic experience of, say, a sunset quite independently of any scientific understanding of it in terms of refraction of light rays etc., and vice versa, it is equally true that a great deal of our more devel ped scientific understanding would not be possible without an understanding of some aspects of mathematics. Similarly, moral judgements clearly often require knowledge and understanding drawn from their areas such as the phylical sciences and knowledge of persons. With regard to the sec individual school subjects such as English and geography draw on a number of what would count as different forms of kn wledge in Hirst's terms. The fact that such "combinations" of ways of thinking have a long tradition and have been valued over a substantial period of time suggests that they are not merely arb trary conglomerations.

But, now, if it is true some forms of knowledge draw on others, and if it has been found valuable to combine a number of f rms in exploring certain areas of experience, does it not begin to seem that the forms are not as logically di tinct as Hirst supposes? In which case would not serious doubt be cast over the claim that they are the **fundamental** forms that thought and understanding take - and therefore their status as the basic planning units of curriculum structure, setting its basic objectives?

Such a line of argument would, h wever, seem to be too hasty. That one form of knowledge utilizes another in no way affects the claim that one cannot be reduced to the other. Hirst wo ld argue that no matter how prominent maths may become in

science, there will always be something uniquely scentific which maths cannot replace and to which the maths has become subservient. The motivation underlying the use of mathematical statements in this context is the pursuit of scientific truth, not mathematical truth. Similarly, that certain combina ons of the forms have proved themselves valuable or convenient in human affairs over a sustained period of time, is not necessarily to deny that they are indeed combinations - that is, of distinct elements - and perhaps represents a good illustration of how human problems and decision-making are dependent upon the forms.

Such considerations, then, should lead to the rej ction of any quick assumption that on Hirst's view the forms should be taught in isolation from each other. Whether this should be so would depend on all manner of considerations concerning how children learn best in the differing circumstances in which teaching is taking place. Because of the considerable variation n individual children's levels of ability and styles of learning, and in the contexts of learning, it would be unwise to expect that there could be any one universal recipe or prescription here. But whatever methods and kind of curriculum organisation are considered, the basic purpose, objectives, and criteria of success would remain clear: their effectiveness as a means to enabling pupils to acquire the rules, standards. and procedures constitute the distinct forms of knowledge such that they would be able to begin to operate within these forms and structure their own experience in terms of them. Only in this way would they achieve rational consciousness and gan objective understanding of themselves and their environment. And this is

the essence of the traditional notion of liberal education: a mind liberated from ignorance and freed to e plore reality.

Here, then, we are given very considerable guidance as to what the achievements are that constitute the development of thought and understanding, and therefore what the general compass and more specific goals of the curriculum should be. And since a proper grasp of these considerations will clearly be beyond the pupils themselves, the view would seem to lend support to the notion of an extensive pre-specified compulsory curriculum whose main objectives would be set out by those who had mastered the various forms of rationality that our culture has so far produced. This view seems to me to draw very faithfully the consequences for education of those basic tenets of rationalism that I have previously described, particularly in the way it orientates education around the development of intellectual understanding in its various forms and its emphasis on the public nature of this understanding conferred by its underlying structure impersonal rules, standards, and procedures, whose aspiration is the achievement of objective truth.

Because of its faithfulness to these defining characteristics of rationality - both in the view of knowledge and understanding it advocates and its heavy emphasis on logical analysis, even when this leads to conclusions that are counter intuitive, in arriving at this view - I will term it a version of 'hard rationalism". Its main strength is that it gives a systematic account of the different forms that understanding may take, which, if correct, would provide a clear and fundamental set of considerations to be

bro ght to bear in thinking about how to structure the curriculum. But its great strength is also its great weakness. In attempting to describe the whole realm of human understanding as being the product of rationality, and in attempting to organise its different facets in accordance with a common model of rationality, it seems to run into severe dangers of distorting at least some of the areas it purports to be characterising. This criticism has led to what one might term a form of "soft rationalism", but before we look at an example of this it would be useful to examine the criticism a little more closely.

The main source of this distortion is Hirst's determination to characterise thought and understanding as ultimately revolving around the notion of making statements whose meaning is largely a function of the objective tests for truth used to verify them. The problem here is that many areas of thought that intuitively one feels to be of great value and to be integral - indeed, defining aspects of the human condition do not sit happily under this description. The idea that the arts make statements in a way ana ogous to, say, maths or science or morality, and that these statements can be judged as true or false, just does not seem to mesh with our experience in this area. The question as to, say, what statement the 'Mona Lisa' makes, and whether it is true, seems quite inappropriate, and in any case hardly seems to characterise the essence of aesthetic contemplation. This is a cruc al point for the hard rationalist, suggesting as it does that even if a fuller account than, as a matter of fact, Hirst has yet prov ded of the objective tests for truth for each of the f rms was f rthcoming (he has been conspicuously vague on this point in

areas such as aesthet cs, morality, religion), they might be of no, or limited, relevance in characterising many of the most fundamental domains of thought and understanding achieved by human civilisation.

The seriousness of this dilemma in terms of the hard rationalists' attempt to provide an important part of the rationale for the curriculum is illustrated by the three possible responses that seem left to them. Firstly, they may simply insist that the arts are centrally concerned to make statements, but we have yet to properly understand and describe the way in which this is so. But this stance rests on a quite unwarranted article of faith, itself denies one of the basic rationalist tenets of basing belief on good reason, and must surely be treated as simply an unsubstantiated and implausible cla m until the required demonstration of its truth is provided.

Secondly, they may allow that the making of statements is on y one aspect of he arts, and possibly not its central one. But this would surely be to deny the original thesis that the forms of knowledge are the source of mental structures and conscious awareness, since it is to concede that in the arts at least there is experience which lies outside and independently of them. It would also mean that one would not turn to the forms of knowledge thesis in setting out objectives in this area, since to teach the arts in the way they appear from the perspective of this thesis would be high y distorting.

Lastly the hard rationalist may s y that the arts n t, essentially, m ke statements and are therefore not forms f rational thought - and therefore not roper comp nents of a liberal education. Such a response would at least be consistent with the original premises of the heory. But it has the consequence of leading to a cabined indunattractive view of education, resulting from dogma rather an genuine openness to the nature and range of the achievements which have come to define human consciousness and potentia

As ind cated earlier, more recently a view of educat n has been expressed which, while derived from the same bas c ten ts, could be construed as giving them a "fter" interpretation than Hirst, and thereby provides an interest ng alternative. Since it could be seen as avoiding some of the less attractive features and more obvious difficulties which attach to hard rationalism we will turn to it now as a means of rounding out our view f the rationalist perspective on the development of thinking and understanding in the educational context prior to looking at m re radical alternatives.

Charles Bailey: Beyond the present and the particular 4

Charles Bailey, who has clearly een influenced by 1 t e writers we have so far considered, seeks to provide a view f l beral education based on a rationality which he feels t be less abstracted from human experience than that of Hirst. Taking p the criticism that Hirsts tendency to dw l on what he perceives

to be strictly logical considerati ns runs the danger of seri usly distorting the character of the activities which they purp rt to describe, Bailey advocates a n ion of liberal educatio - and theref re rational developme t of mind - formed on a different basis.

Following a point made by Oakeshott, Bailey clams that human experience is subject to a duality of two worlds: the world of persons, and the world of physical material and structures. Thus, and in contrast to Hirst, he claims that there are nly two fundamentally distinct forms of understanding: that whose focus of attention is itself an exhibition of intelligence, ie., any form of human practice; secondly that whose focus of attention is not itself an exhibition of intelligence, 1e, aspects of the purely physical world. For Bailey, this is the only fundamental logical division within the domain of knowledge, such other divisions as exist be ng matters of tradition or co venience. Furthermore, he wishes to maintain that these forms -particularly the former - are concerned with a much richer of on of meaning t an that expressed in statements and deri ed from their tests for ruth. He points out that the notion of meaning has many more se ses than the hard rationalist seems to a low, or at least is prepared to celebrate. For example there is meaning in the sense f intention, personal point or significance, importance and purpose: a richness of articulable understandings which the n tion f statement making cannot e co pa s.

Thus Bailey gives a view of the development of thought and understanding which is n t tied to the different classes of

statements it may be possible to make But if it is not to be based on this, what is it to be based on? Clearly, while the duality of understanding thesis my be very important, to is hardly sufficient to the task of describing the content of a liberal education. How are we to select within the two greet domains of understanding so as to produce a curriculum which is both balanced and conveys whit is centrally important?

Bailey makes a start on this problem by providing a list of principles upon which, in his view, the structure of a liberal education should be founded. I pick out some of the main ones below.⁵ A liberal education should be.

- 1) liberating from the restrictions of the present and the particular;
- 2) concerned with knowledge and understanding which is fundamental and has general applicability;
- 3) concerned with intrinsically valued ends;
- 4) concerned with the development of reason;
- 5) concerned with what is objectively valuable, hat is, what is justifiably to be valued.

Such a list clearly gives the impressi n of a more bradly based vew of liberal education tan the hard rationalist, frexample it seems to suggest that the development of reason is n w only one end amongst others. But on this point, such an impression is, I suspect, erroneous

Let us consider each of the princ ples in a little more detail. The first is of prime importance, providing as it does the title for Ba eys book. But what does it mean to be "liberated from the restrictions of the present and the part cular"? Bailey seems to have in mind here the development of a person's capacity to stand back from his or her immediately present situation, locate it in a wider framework of understanding, and thus be placed to some degree in the position of being able to make autonomous choices with regard to it. This is clearly a very important (for some, almost a defining) human capacity and what seems to lie at the heart of it is one of the basic motives of rationality which we ide tif ed in chapter four: the desire to assess and evaluate, and wh ch, as we saw in our discussion there, is a function of the basic categorising activity in which rationality consists. We "liberate" our elves from what is immediately present by seeing things as instances of more general categories.

This connects with the second of Bailey's principles. The generalisable knowledge and understanding which he envisages are clearly also an expression of the categorising activity fundamentality of understanding referring to the acquisition of cat gories which are of greater generality, and therefore applicability - in the way, say, that cincepts such as 'ritual' or 'au hority' can be applied across a wider range of situations and soc eties than those of 'shaking hands' or 'police constable'.

That Bailey should be concerned with knowledge and understanding which is "objectively valuable" is a point that any rationalist account will wish to make for as we have seen its central aspiration is the achievement of objective truth arrived at through shared forms of reasoning. And finally, that liberal education must be concerned with intrinsically valued ends would seem to follow from this: in the end reasoning must come to rest on those things which are to be valued for their own sake and in the service of which other things become means. Thus it is an understanding of the intrinsically valuable which is of the most fundamental kind, for it is this that gives direction to, and overarches, all else. We have ultimately to decide what our underlying purposes are in order to decide our priorities and the most appropriate means to achieving them.

As we go through Bailey's principles, then, it becomes clear that he is not attempting to give an account of liberal education which goes beyond the concerns of rationality, rather he is attempting to give an enriched notion of rationality itself.

What sort of curriculum would this more generous conception of rationality suggest, and what will be the basis of its justification once we move away from the objectivity that strict logical analysis is supposed to provide? The spirit of what Bailey wants is conveyed in the following quotation:

"Education, in its liberating sense, is appropriate for persons because only persons act out of their own understandings of situations they find themselves in. They do n t simply

react or live out built in instincts or behaviour patterns. Persons enter a world already perceived through the understandings, meanings and practices shaped and modified by countless generations of persons before them, and these understandings have themselves to be understood by young persons, not merely received as passed on to them. This is the vision, and to manage this with integrity is the task of liberal education." (Bailey, 1983, p. 107)

The detail is roughly as follows. In the primary years of schooling emphasis should be placed on the development of what he terms the "serving competencies" of literacy, numeracy, logical reasoning, physical education, and also certain dispositions (an area not explicitly considered by Hirst) such as to attend, concentrate, co-operate, reason, inquire, imagine etc. For Bailey, these are all a necessary pre-requisite for the attainment of the larger goals of a liberal education, including entrance to those "two great orders of inqu'ry": understanding of human practices, and understanding of physical material and structures. But now, how are we to specify a content within these two great orders if we do not admit any logical divisions within them of the kind that Hirst did? It seems that we must be content with a justification of somewhat "softer" objectivity.

In the case of inquiry into human practices we seek those long established divisions which historically and/or anthropologically have been valuable in "the developing understanding of their situation by human beings". Interestingly, and contra Hirst, Bailey makes it clear he does not mean by this

the value of these understandings is nece arily to be judged in terms of their objective truth, it is rather the extent to which such understandings have been of significance in human history and development. For example, if we took the area of religious practices and understanding, we could believe its claims to be false but still argue for its inclusion in a beral education on the grounds of its large influence historically, and across different cultures, on the understanding and practices of human beings. In the case of the field of inquiry into the physical world, the criterion is in some ways parallel, but emb dies a significant difference. The content is selected in terms of its importance in developing understanding of oneself as a physical organism in relation to other organisms inhabiting a physical universe. Here there seems to be more emphasis on the notion of truth in that presumably Bailey wishes what is taught about the physical world to be warranted by the current state of the evidence, and would thus preclude astrology even though, like religion, it has been of enduring and widespread influence.

On the basis f the criteria set out above Bailey advocates a pretty extensive compulsory curriculum. To the serving competencies already mentioned, we must now add the "humanities proper" literature, history, morality, religion), and inquiries into the "makings and practices of persons" (including their social, politic l, economic, industrial, and commercial institutions; mathematical and logical systems; religion and morality; art, craft and design; literature and drama; music and dance; games and physical activities). And this must be complemented by an equally long list of top cs and areas of

understanding of the physical world for example: the workings of the human body; health, medicine, nutrition the behaviour and ecology of plants and animals; simple technologies; astronomy and cosmology; physical geography and meteorology; energy and material resources; ecology and conservation With so demanding a compulsory curriculum in mind, Baileys suggestion that, in response to certa n child-centred considerations, "there is no reason why schools should not (also) have facilities for offering all kinds of activities and studies to be chosen on the basis of personal interest" must appear, at first blush somewhat tongue in cheek.

However, Bailey's soft rationalism has certainly come up with a rich view of what it is to be liberally educated, and the way it attempts to firmly root itself in the needs of a person in interaction with the social and physical word is attractive when compared with the rather abstract feel of hard rationalism. It is certainly more l'kely to meet the demands for relevance to "real life" that are sometimes made by the recipients of education, and by teachers who both think it important for children to see a point in what they are doing, and appreciae the motivational advantages of their doing so. But is it suff ciently well founded? That is to say, has it shown with sufficent stringency what constitutes the different activities that it lists as contributing to our understanding of ourselves in relation to the world and the rationale for this particular listing? This is an important issue to clarify: if we are to avoid a very content-led curriculum we need a firmer sense of what it will be to engage with the topics listed and precisely what they have to offer.

For example, within each of the two great orders of inquiry are there different thought games, or only one with differing contents? What place, if any, w uld be given to the disciplines of hist ry, geography, philosophy, psychology, and sociology in, say, the inquiries into the makings and practices of persons? And what emphasis would be given to learning their own procedures and ways of organising and explaining things? Indeed, are the lists themselves as much the result of the application of some kind of imp icit wisdom as the strict application of the explicitly stated criteria? For example, why not microbiology or architecture instead of astronomy? And finally, on a somewhat different tack, does Bailey's whole view f the curriculum, just as rati nalism does, too readily make the jump from the claim that something is objectively valuable to the conclusion that it should therefore be compulsory - motivational problems then being not matters of choice of content, but problems only of method? more thorough consideration of the strengths and weaknesses of "hard" and "soft" rationalism, and their consequences for teaching, is the business of the next chapter, but before moving onto this it will be useful to briefly con ider the perspectives these views offer on another important issue.

Education and "the basics"

Closely associated with the issue of standards in education which we discussed in Chapter Two has been the issue of the extent to which primary educat n should focus on 'the basics". A perennially recurring criticism over recent years has been that the basics are receiving too little systematic attention in the

primary curriculum and this has a seriously debilitating effect not only on the general standard of performance of children in primary schools but also in their ability to cope with secondary education and the demands of life outside school. And again as with the "standards" debate, protagonists of this view tended to operate with a largely unexamined set of assumptions about what the basics are. They took it as self-evident that they were to be pretty well equated with the "3R's' - thought largely in terms of factual knowledge such as multiplication tables and spellings and relatively mechanical skills such as word recognition, punctuation and handwriting, and numerical computation.

Now, of course even at this level of debate real problems are in danger of being glossed over, notwithstanding the fact that some are now very familiar. For example, in the age of cheap calculators is it really speed of computation or understanding of number operations that is basic: in what likely situations t day would someone do 'm nually" a series of extensive long div si n sums? Problems connected with what is basic to becoming a reader have been llustrated in the previously menti ned discussion on educat nal standards But the real issue with regard to the "basics derives from the fact that what counts as basic is dependent upon a perception of what is needed. And this clearly involves reference to an underlying - if often implicit - set of values. Is it usefulness in everyday life that should be the criterion? Or what will be needed for future education? Or what? If we take everyday utility as the justification for concentrating on the 3R's, it is interesting to ask just how much of them does it support? Exactly what level of w rd recognition, spelling etc, is

"basic". This is an important curriculum is ue if the force of labelling something as "basic" is to give it priority over other things in terms of time and resources.

Clearly also, we should need to keep abreast of changing social and technological circumstances, eg., (extending the "calculator" theme what effect should the likely availability in the foreseeable future of cheap, portable word processors with spell checks have on our perception of the "basicness" of certain language aspects of the 3R's? And to move onto a more recent candidate for treatment as a basic, how much of the National Curriculum "core subject" Science can be said to be absolutely necessary to get by in everyday life? Ironically, perhaps, in our technological age, the very complexity and sophistication of the machines and instruments that we commonly use and the consequent proliferation of "black boxes" in our practical lives gives a strong impetus to rely on experts rather than our own scientific understanding of the things we use. Understanding and soldering up a broken crystal radio receiver is one thing, but a Nicam television set?... a computer?... CD car ignition?

Further what is to be meant by "getting by in life" anyway? Doesn't this beg all sorts of questions about the quality of life we hope or expect to lead? If we mean something like surviving in modern society, n t only do many people in 'average' occupations seem to get by remarkably well with little or no systematic scientific understanding (including, it might be noted plumbers and garage mechanics), but also so do many highly successful professionals. The underlying point here is that the quality f life

we may desire is shaped by our outlook - our view of what life is and how it could and should be led - and this in turn is significantly shaped by our education. Thus what is considered to be basic in education is perhaps more appropriately linked to the intrinsic a ms of education itself - that is to say the question becomes what things are basic to achieving the larger substantive g als of education?

Now if we take this stance clearly it will be important to make as clear as possible what our underlying concept of educati n is. This is where the two views of liberal education we have been considering provide food for thought. They pose the question: "What are the basic prerequisites for achieving liberati n from ignorance and the full development of the rational mind?" If this latter is conceived basically in terms of initiation into the logically distinct forms of knowledge, then it is possible that a much enriched view of the basics will begin to emerge.

T begin with, acquisition of central concepts, procedures and ways of testing for truth in each of these forms will be basic and will be of equal priority. (Thus there would be no "core' subjects as with the National Curriculum.) And the 3R's themselves would be treated differently. For example in mathematics the emphasis would move away from computational skills to understanding number operations and developing broader mathematical concepts such as those of "et" and "matrix", which arguably are basic to understanding so much else in that area. Reading and writing, once they rose above the relatively mechanical level of word recognition and forming one's letters to

the grasping and expression of meanings, would truly require a "language across the curriculum" approach, for if, as Hirst claims, meaning is embedded within the different forms, literacy must itself involve engagement with the conceptual structures and sets of procedures that constitute them. There can be no notion of reading as a general skill which of itself will enable the child to read with understanding across the forms of knowledge. To read with understanding is precisely to engage with the concepts peculiar to each of them. Thus the "basics" of reading and writing on this view becomes the ability to engage intelligently with material within each of the separate forms.

Similarly, Charles Bailey's version of a liberal education invites a much enriched view of what counts as the basics, his notion of "the serving competencies" (1983, pp. 110-114) acknowledging a range of skills and dispositions which far outstrips the 3R's. We have noted how, alongside fairly conventional notions of literacy and numeracy he places:

logical reasoning - to be able to infer, avoid contradiction, to hypothesize, to discern what is logically possible and what is not;

to think critically;

physical fitness;

and importantly a range of dispositions such as:

- to attend,
- to concentrate;
- to co-operate;
- to organise t'me, material, thought and action;
- to reason;

to imagine possib lities;

to inquire - try to understand.

On Bailey's view these are all instrumental to serving the larger purpo es of a liberal education and suggest a set of priorities which go way beyond traditional conceptions of the basics in terms of what they imply for the experiences that the primary curriculum should be providing for children.

While I am not here going to argue in detail the merits or otherwise of these vews, I suggest that claims of this kind certainly need to be taken very seriously. They serve to provoke a more thoughtful assessment as to what the basics in primary education really are - along with what could be far-reaching implications for establishing priorities within the curriculum. And broad policy decisions about the basics apart, Hirst's emphasis on central concepts and procedures, and Bailey's emphasis on what is more fundamental and generalisable might provide useful criteria in decid ng priorities when faced with a plethora of National Curriculum objectives within an area (in which distinctions of kind are not usually made) r the vast content potential of, say, a topic on the Aztecs. Thus o e might give greater emphasis to objectives that required understanding rather than say recall of information, or the naming of parts, and to aspects of Aztec society which could exemplify concepts transferable to understanding other societies such as 'ritual', adapt on to environment', 'culture' ('way of life') rather than very context specific items such as the names of items of clothing, the locati n of towns, or particular customs taught for their own sake.

CHAPTER SEVEN

RATIONALITY AND EDUCATION RECONSIDERED

We have now considered the way in which rationalism conceives the development of thought and understanding, both n general terms, and in its "hard" and "soft" manifestations in the context of education. But how adequate an account of thinking and understanding does rationalism give, and how acceptable are its broader implications f r teaching? We have already noted that rationalism characterises thought as highly dependent upon public conventions for its structure and objectivity, and I intend to begin my evaluation by considering this aspect in a little more depth Let us begin with some of its strengths.

Education, objectivity, and public standards

It seems to me to be quite correct to suppose that to develop someone's thinking is to somehow improve it. And t improve it is to say that it has now achieved some new, higher standard which is in some sense objective. Certainly this element of objectivity is of great importance in the educational situation, for without it judgements of progress will be arbitrary and the idea of educating someone unintelligible. For example, if no objectivity attaches to the judgment that reading Tolstoy is superior to reading the 'Beano" - if, at bottom, this is simply matter of subjective wh m - then the notion of making progress i the area of a child's appreciation of literature, ie, of educating in this area, falls apart, for there could be no cause to wean him off

the "Beano' nto anything else which is more demanding. (And surely it is the case that within the field f children's literature itself, *Tom's Midnight Garden* by Philippa Pearce, for example, is more demanding, more perceptive, more refining of emotion and outlo k - thus better literature and more educative in some bjective sense, than 'Desperate Dan'?)

Now there is a response to this sort of issue that is often strongly voiced and which we had better deal with right now since in my view it is as misguided and damaging as it is pervasive and tempting. It runs something like this: it does not follow that a teacher needs objective values, for we could have as our educational objective in the area of, say, literature the idea of helping children to make their own informed choices. Such an aim, it might be argued, need make no reference to any notion of objective standards of quality in the arts since it simply seeks to broaden the base upon which a child will make up his or her own mind on such matters. Judgments of quality and value in this area, and perhaps in many others, are ultimately subjective, and to encourage children to see some things as of higher quality or more value than others, is to indoctrinate.

This way of thi king clearly has a geat initial attraction: it seems liberal in out ook and to relieve us of the often difficult task of trying to identify, articulate, and demonstrate to the satisfaction of others, the bjectivity of what we take to be of value. The difficulty of this is so notorious in some areas, such as the arts, that there can be an almost overwhelming temptation to

say values here re purely subjective: a no on put succinctly in the old adage: 'Beauty lies in the eye of the beholder". On a broader fr nt, in a situation of cultural diversity and pluralism of moral and social values that exists in many chools, this appeal to some form of relativism seems to grow in strength. I wish to suggest that despite its undeniable attractiveness, it is a temptation to which we should not, and probably as educators cannot, succumb. Since I believe this to be a crucial, though sometimes unrec gnised issue for teaching, I will develop it a little further here.

The first point that must be made is that any course of action involves commitment to a value, which is at the very least to treat it as if it were objective. So the teacher who makes the above response is herself committed to at least the value of informed choice. Secondly, it may seem possible in many roles to live in the spirit of the subjectivist thesis, but in the role of teacher, where one has explicit responsibility to guide the development of others, its problems are insurmountable and the intellectual selfdeception t invo ves is likely to lead to bad practice. Teachers cannot avoid making decisions about what to do, the direction they will encourage learning to take, and they will be exhibit ng values throughout the whole gamut of their behaviour. To take the example given above: decisions concerning what is to count as a broad base of understanding, and what counts as representative of different styles in literature, will involve many tacit values which are being treated as if they are objective. The sub ectivist outlook will leave all this largely implicit and unexamined - for what could be the point of doing otherwise, if ultimately anything

is as good as anything else? But if the teacher will be endorsing certain values nonetheless by virtue of her guiding role, surely we are entitled to ask that the values that are being endorsed are made clear, and whether they are worthy ones?

Honest subjectivism would lead to paralysis or chaos: the former, in the sense that there would be no basis for making any choices (even to choose to do something purely out of whim, is to be committed to the value of doing this); the latter, in the sense that we are then left only with a world of mindless reaction. There an important sense in which the human condition is characterised by its capacity to value. And unlike simply desiring something, valuing it means that we attribute some quality to it which is not purely the product of personal whim, but has some objective basis. That is to say that internal to the meaning of valuing is some notion of properness, fittingness, appropriateness of the thing valued which belongs to it independently of our caprice. It is experienced as a facet of the situated thing itself and is therefore something that strictly speaking we discern, rather than simply decide. Thus thoroughgoing subjectivism is not merely a view about the nature of values, it is a view whose consequence is a denial that there are such things as values. And in so-doing, it denies an essential aspect of what it is to be human.

The truth of the matter is, I think, that often those who say that all values are subjective (or relative) in the kind of situation we have been considering, do so out of the best of motives, but on the basis of a confusion which actually works against what they seek. Concerns not to indoctrinate or to foist off values on pupils are not based on subjectivism, but on a positive commitment to such things as the individual subjectivity of pupils, the integrity of differing cultures, and the value of tolerance. In other words it is a commitment to a set of values that we might loosely call those of a liberal democracy. To be so committed is not to believe that any values are as good as any others, but that in some objective sense liberal democratic values are more justifiable than others.

But what, then, is the source of objectivity in our judgments of value? Could it not be at this point that the notion of public conventions emhasised by rationalism has an important part to play, for is it not largely in terms of sets of criteria that have evolved throughout the period of human beings' interaction with the various aspects of their environment that judgements of worth are made which escape the purely arbitrary through having become widely agreed and shared? The notion that objectivity is achieved by reference to shared rules. conventions, seems to allow the possibility of objective judgement in areas which otherwise would be hard pressed to rise above the purely arbitrary (thus placing them beyond the pale of education), and invites a more generous and sensitive conception of truth than might otherwise be possible. There has been a tendency in modern times to equate objectivity with scientific objectivity, and as a result areas of thought and understanding, such as the arts and humanities, which cannot produce the hard "proof" for their claims that science is often characterised as doing, have sometimes come to be regarded as merely subjective, inferior, or even illusory. But if we allow that objectivity and truth result from the application of publicly agreed criteria, then it would seem that there can be as many kinds of truth as there are sets of conventions (or "knowledge games", to use the terminology of a previous chapter), and the imperialism of science is broken. This could be seen as both liberating and status-restoring to non-scient fic studies, which would no longer be pushed into regarding themselves as poor imitations of something else. Interestingly, though, this possibility, which is so conspicuous in the hard rationalism of Hirst, appears somewhat restricted in the soft rationalism of Bailey, which allows of only two logically distinct modes of thought - despite the wish of the latter to provide an enriched view of rationality.

Another upshot of rationalism's emphasis on public convention in the structuring of thought is that it holds out the prospect of being able to set out objectively justifiable goals which would constitute what is to count as progress in the development of ch ldren's thought in the different areas. By careful analysis of each of the knowledge games it should be possible to identify agreed key concepts, propositions, and procedures and set these out in a graded way from the relatively simple to the relatively complex. Such an approach is the basis of many maths and science schemes in use in schools today, and seems to hold the important benefit of both providing a coherent programme of work in the of monitoring an objective means area concerned. and achievement - the place reached on the scheme. If this could be applied to other areas of the curriculum (and why should it not be, if they, too, consist in sets of public concepts etc.?) this would seem to be an important step towards developing children's

thinking and understanding in these areas in the most efficient way. Many aspects of the structure of the National Curriculum clearly reflect an attempt to pursue this approach.

A further consequence of the view that thinking is structured by shared conventions and agreed standards of truth, quality, and value, is that claims made in the different areas of understanding will be assessable in terms of the publicly accepted reasons or evidence given to support them. Indeed, on this view, what it is to have an understanding of something will largely be to have acquired the public evidence and reasoning upon which claims concerning it are based. Thus a child's understanding of, say, how plants grow can be seen to be developed by providing explanations on two fronts: a) explanation of the public meaning of the terms used to describe this process; b) explanation of the supporting evidence. Rationalism constantly draws our attention beyond the question of "What do you know?" to the question of "How do you know?", and insists that both must be answered in accordance with publicly accepted standards. The task of the teacher then, is to convey public meanings and evidence, and this will involve an on-going process of de-centring on the part of the child as her thinking develops by being confronted with considerations other than those that derive from her own affectively conditioned and impressionistic outlook, and becomes organised around sets of impersonal public standards. As R.S. Peters once put it, the rational thinker is one who takes on the perspective of the "generalised other. I In this way, through the internalisation of such impersonal public standards and their application in her experience, the child will come to perceive and

believe in a way that is justifiable, ie., does not contravene the rules of the relevant "game", and takes account of the available evidence.

It can be seen, then, that rationalism seems to provide a set of answers (some of which have been set out in more detail in previous chapters to many of the most pressing questions that face a teacher who is seriously concerned to develop a child's thinking and capacity to understand. It gives an account of the way in which thinking is structured, the importance and source of any objectivity it may achieve, the extent to which it takes radically different forms and what such differences consist in, and what would be centrally involved in being critical, creative, and capable of independent thought. It also gives suggestions for the broad framework of a curriculum intended to develop pupils thinking, and something of the content which would flesh this out.

However, its attempt to provide this guidance is not without its problems, some of which begin to surface in the tension between what I have termed "hard" and "soft" rationalism. One of the problems highlighted there is that just as hard rationalism provides relatively sharp criteria for the distinctions it claims at the price of plausibility in many areas, so soft rationalism recaptures some plausibility at the price of lack of sharp distinctions and justification. That rationalism presents us with a choice between on the one hand, a view that is vitiated by its attempt to be objective and clear, and on the other hand a view that is vitiated by its attempt to stay in touch with experience, perhaps suggests that it is not wholly adequate to the task it has

set itse f. We will return to this possibility in Part Three. For the moment, there are some other reservations to express.

Rationali m and the subjective dimension

To begin with, I think that a strong criticism can be made with regard to the rationalist's assumption that to have shown that an area of thinking has objective value carries the consequence that it must therefore be compulsory. This seems to embody an imperialism of the most strident kind, for though I have argued that value is not simply arbitrary, it is nonetheless contextual. That is to say, it is bound up with the particularities of differing, and in many ways, unique situations. Thus we may say, for example, that given a certain situation, an understanding of some aspect of science is valuable in the objective sense that we are cla ming this to be true for all relevantly similar situations. But this, of course, is not to presume that everyone is in, or will find themselves in, such a situation. This would be a further claim yet to be demonstrated, and to make wholesale assumptions about it is both arrogant and absurd. Einstein's theory of relativity is doubtless f great objective value, but that hardly warrants a claim that it should be compulsory learning for all children. Something's being of objective value at most implies that it is of potential rather than actual value to any individual at any part'cular t me.

Such considerations concerning the nature of objectivity, and its relati n h p with notions f a compulsory curriculum, bring us

starkly up against the way rationalistic approaches to the development of thinking and understanding tend to disregard motivational aspects. It is not, of course, that a teacher persuaded of this kind of view will be insensitive to the way one might facilitate learning by presenting what has to be learnt in as interesting and enjoyable a form as possible, but that for such a teacher this comes essentially as an afterthought - something one tries to do with or to a content which has already been chosen on other grounds. Thus Charles Bailey (1983, p. 135) claims that:

" problems of motivation are not essentially problems of choice of content, but methodological and strategical problems of pedagogy concerned with how to engage pupils in what is demonstrably worthwhile."

But, quite apart from the fact that this puts a quite impossible burden of responsibility on the shoulders of a teacher to make what he or she is teaching interesting to all pupils - which if taken seriously could only lead to feelings of guilt and frustration on a fairly massive scale, or dishonesty about one's achievements - it perhaps reflects something of a larger misconception concerning the nature of understanding itself. I believe it is rationalism's preoccupation with the public, the shared, and the rule-governed that lies at the heart of the problem. To try to demonstrate this, let us consider the following examples:

I know that William the Conqueror invaded England in 1066, but I don't understand it.

I know Darwin's book "The Origin of the Species", but I don't understand it.

I ve known Richard for years, but I've never really understood him.

I knew that living in an old house would be damp, cold, and inconvenient in many ways, but now (one winter later) I understand just what that means.

I knew that lung cancer and smoking are related, but until then (nursing a father suffering from cancer as a result of smoking) that didn't mean much to me.

She thought she knew what sadness was until she said goodbye to John.

How adequately does the rationalist account characterise the kind of understanding picked out in the second part of each statement?

Let us begin by acknowledging straight away that insofar as these statements refer to some kind of propositional knowledge, the rationalist account makes many important points about what it is to understand. Clearly one can have no understanding of a proposition unless one has some correct understanding f the public concepts in which it is framed. To take the first example, if one thought that "William the Conqueror" was a variety of Rhododendron, and '1066" the year before last, or worse, a

telephone number, one has either a gross misunderstanding of the proposition, or, in the second case, no understanding at all - the statement becomes altogether unintelligible. This much, perhaps seems too obvious to be worth saying, but it does make absolutely clear the extent to which the role of the teacher in the development of a child's understanding must be concerned with helping him or her o internalise the correct - ie., publicly agreed - meaning of terms.

But it also broaches another important issue for teaching: while there must be some correct understanding, it does not have to be complete. There is sometimes a tendency to suppose that one has to understand one thing fully before proceeding onto the next thing. This is clearly an error, and one which has no doubt led to a lot of boredom and frustration in situations where children have been cajoled into an endless series of repetitive exercises intended t give them a complete grasp of some "vital" point thought to be essential to any further progress. This "fallacy of learning through perfected steps", as Robert Dearden once called it, sets unnecessary obstacles to further learning, undermines the confidence and curiosity of those children whose learning is frequently stalled in this way, misunderstands the way in which public concepts get their meaning.

One of the hings that the games analogy makes clear is that concepts do not exist in isolation. They do not have discrete meanings that can be fully comprehended: they depend upon each other for their meaning. They exist in webs of

interrelationship, and there is not necessarily one way into this web, nor one route through it, and there is rarely any pre specifiable "amount" of understanding of any one term in the web that must be achieved before some understanding of other terms in the web can be gained. In the same way that the meaning of the term 'goal' in football can only be understood in the context of some understanding of the game as a whole, so terms such as 'mother' and 'son' can only be understood through their relationship to a whole web of other terms such as 'father', 'daughter, 'sister', 'family', etc. which articulate a set of social relations and responsibilities. A developed understanding of any one of these implies some understanding of the others and thus from the point of view of the concepts themselves, it is no more easy, or more difficult, to begin with any particular one of them.

Similarly, in an area such as maths, frequently thought of as highly "logical" and often conceived by teachers and authors of schemes as something to be developed through a linear progression of ideas, it is clear that, say, the term "seven" is dependent upon the meaning of other numbers, the concept of number itself, the operations that can be performed upon them, and so forth, and that one gains in understanding of the 'seven ess of seven as one expl res this web of interrelationships. There is no one route to achieving this because, in truth, there is no such thing as **the** meaning of "seven". It has meanings, and these depend upon the context in which it is being used.

This aspect of m re sophi ticated rationalist accounts lends support to the view that learning 1 not linear, but spiral, and that

it is rarely to be achieved through one avenue only. I think that it is hard to overstress the importance of this for teaching, programmes of learning, and consequently for the teacher-pupil relationship as a whole. And it is a point whose importance is in severe danger of being overlooked by those who advocate any kind of national curriculum which seeks to impose detailed sequential sets of attainment targets during the process of Some characterisation of the broad framework of goals education. that our education system should be working towards is perhaps beneficial in giving teachers a keener sense of direction than they sometimes have and of ensuring a certain kind of equality of opportunity, but close pre-specification of learning objectives on anything but an individual basis is likely to be highly detrimental to the learners who are at the centre of the exercise. Such prespecification ignores the myriad routes it is often possible to take through our complex webs of interrelated concepts, and nfringes the freedom of individual children in consultation with informed teachers to follow those paths which have most personal meaning.

Let us return now to our list of examples. Presumably it is further knowledge of this interlinking kind that would make good the lack of understanding claimed in the William the Conqueror example. Above and beyond the meaning of the terms, the speaker needs to relate this proposition to a web of others concerning ambitions and motives, and social and economic pressures. Similarly, to understand Darwin's book "The Origin of Species" would require a grasp of the fundamental con epts of evolutionary theory, and the evidence that Darwin marshals in its s pport This all seems to fit fairly well with the rationa st view

of understanding as inking things (eg., concepts, pieces of information, evidence) together in accordance with publicly shared rules and standards. But does this hold good in the same way for the other examples?

In these examp es one could suppose that the person knew the relevant facts, and that the facts were linked together in accordance with the relevant public concepts. The enlarged understanding was not so much a result of acquiring more of these linked facts, rather somehow the person concerned came to know these same things in a deeper way, ie., understanding has, as it were, developed through qualitative deepening rather than quantitative addition. Thus, to take the 'living in an old house example', the speaker may have known in a perfectly adequate way from the point of view of public meanings that a leaking roof leads to dampness, drafts, and coldness in winter, but now in some more subjective sense this actually means more to him.

This is not, I think, simply to make the well known point that understanding requires that new information and ideas become linked onto a person's existing understanding, beliefs, and previous experience. It is, no doubt important to be aware of understanding as having this subjective dimensi n, ie., that we need to complement linking into the public network of shared concepts with a linking into an individual's existing personal framework of experiences. But such two-way linking remains essentially concerned with understanding through breadth, rather than depth, of relationship. The examples we are now considering seem to suggest something rather different. The occupant of the

old house had already related concepts of cold and damp to his previous experience; in the smoking and lung cancer case the facts and their relationship all made perfectly go d sense; Jane knew in a perfectly g d way what sadness was before she said g odbye to J hn; but each of them now knows what they already knew in some further sense What was formerly known in an averaged off way has gained a felt personal cogency, such that the person's outlook has been significantly transformed. The meaning of what they knew has been 'brought home" to them, their understanding is such that they now real y appreciate the weight of what they know. The origin and nature of this 'subjective weight" in understanding is one of the chief concerns of the next section of this thesis, but something of its importance is indicated by the following illustration taken from the writing of the nineteenth century philosopher, S ren Kierkegaard.

Kierkegaard: subjective depth of understanding

Kierkegaard was very much against what he regarded as the shallow understanding of deep things possessed by many of his post Enlightenment contemporaries. In particular he singled out their attitude to the Christian Faith - their claims to have outgrown such faith and to have supplanted it with something superior, ie., more rational For Kierkegaard, these people who had claimed to have such understanding of faith that they could find it lacking and had now got beyond it, had no real conception of what faith is. He tries to illustrate this by considering their

understanding of the story of Abraham and I aac (Kierkegaard, S. 1970).

We may recall that contrary to expectation, and though late in life. Abraham's great hope was realised. he had a son, Isaac. As Isaac grew up he became the thing that Abraham loved above all else in the world; for Abraham, Isaac was "the best". However, a day came when God required Abraham to take Isaac to Mount Moriah and sacrifice him as a burnt offering. And out of faith Abraham travelled for four days with his son at his side, went alone with him up the mountain, prepared f r the sacrifice, drew his knife to strike - at which moment he saw the ram that God had prepared and knew that his son was to be spared. there, says Kierkegaard, was someone who knew faith, and what an awesome thing it is. He invites us to imagine the thoughts that must have been going through Abraham's mind as he journeyed beside his son, knowing what he was to do - with his own hands, for God was not going to do it for him. He would be responsible for it, do it of his own will (he could always turn back), and all for no reason that he could fathom. He would simp y do it out of faith. Far from being something easily understood, such faith almost defies our imagination and if we began to understand it, would surely cause us to tremble.

Yet, many who in Kierkegaard's Denmark would know that story off by heart and claim to understand t, would barely be moved by it. "Abraham was a great man: he was prepared to give to God the best" would be the sum of their understanding. How easy it is for such a summation to run off the tongue, and with

such little distress as to hardly give pause for thought, and certainly not to impinge on the real business of getting on in life. Kierkegaard imagines a parson telling the story approvingly in a sermon, the parson himself hardly moved by it. He imag nes members of the congregation listening comfortably to the story one, perhaps casually stretches his legs, another finds a moment to tap out his pipe - as they hear again the story they all know and understand so well. He then imagines the following comictragic situation: one of the congregation, wishing to emulate Abraham's greatness goes home and kills his own son.

"If the orator got to know of it, he perhaps went to him, he summoned all his clerical dignity, he shouted, "O abominable man, off-scouring of society, what devil possessed thee to want to murder thy son?" And the parson, who had not been conscious of warmth or perspiration in preaching about Abraham, is astonished at himself, at the earnest wrath which he thundered down upon that poor man. He was del ghted with himself, for he had never spoken with such verve and unction. He said to himself and to his wife, "I am an orator What I lacked was the occa ion. When I talked about Abraham on Sunday I did not feel moved in the least."In case the same orator had a little superabundance of reason which might be lost, I think he would have lost it if the sinner were to say calmly and with d gnity, "That in fact was what you yourself preached on Sunday. How could the parson be able to get into his head such a consequence? And yet it was so, and the mistake was merely that he didn't know what he was saying." (Kierkegaard, S. 1970)

Lacking an understanding of the awesomeness of the story he was telling, delivering it in a levelled off and essentially uncomprehending manner, the parson had reduced Abraham's supreme act of faith into a cosy commonplace which any man might fo low to his profit. His incapacity to feel and communicate the subjective weight of what he was saying and his inability to empathetically enter into the situation he described left him mouthing words both of whose real significance he had not the faintest notion, and whose simple reasoned meaning he was unable to accept, for in truth in his own mind they were complete y worn out - he ran through them as a matter of form. Here, then we seem to have a dimension of understanding that goes far beyond the idea of thought organised in accordance with public rules. A dimension of understanding which if not overtly denied by rationalism (ie., soft rationalism), is certainly not much illuminated by it, nor properly taken into account by it.

Yet, equally, may it not be thought from the example I have used that such understanding lies beyond the compass of education in the primary school? It is not altogether obvious that this is in fact the case. We are in part here considering the way in which one can, and sometimes should, be affected personally by what one knows. This capacity to understand through being affected, that is, through a form of passivity in which feeling comes unbidden and seems to constitute some more direct apprehension of a situation than calm rational scrutiny provides, is not only not beyond the experience of young children, it is largely their natural way of experiencing things. It is a

way of understanding - ie, standing under the sway of - things that, largely under the influence of rationalism, we consistently tend to wean children away from, destroy their confidence in, and debase rather than develop and refine. By constantly demanding that their thoughts assume rational form and are backed up with rational justification we effectively communicate that rational standards set the standard for all thought. It will be argued that understanding as 'standing under", or "standing in the sway of" is of great importance across the primary school curriculum, representing, as it does, that dimension of understanding that is the true child of one of the most precious but perhaps most fragile motives for learning - a sense of wonderment.

In a time when so much emphasis is placed on learning for instrumental purposes and on understanding which is therefore shaped and restricted by those purposes, it may be of the greatest importance to keep open the door for a relationship to things which is not so restricted, but is more open and directly involved with things in the richness of their possibilities. This is not to say that the affective response to things which I am taking to be a feature of young children's experience should simply be indulged, for it is often, but not always, hopelessly self-centred and is capable of being as blindly obsessive as it is in some adults. Overweening jealousy, desire for power or material goods, are no more open to the richness of things than rigid pigeon-holing It is rather to say that the capacity for affective involvement which has both a directness of contact with its object because it is felt, and openness to it because of its directness and fluidity, is something that needs to be cultivated in terms of its own

possibilities for integrity, rather than forced to wear the mantle of rationalism. What the integrity of this kind of thinking might amount to, and what it might mean for the development of thinking and understanding in the curriculum, will be explored in the next Part. Before moving onto this, let us take the opportunity of taking stock of some of the main themes which have arisen so far in regard to rationalism.

Rationalism: some provisional conclusions

The rationalist accounts we have examined draw attention to many points of importance in an understanding of what is involved in developing children's thinking. They draw attention to the variety of rule structured forms that thinking may take and the way in which some aspects of meaning arise from these structures themselves. They show how it is possible for a certain kind of objectivity to gain a foothold in thinking by reference to publicly shared standards and the richness of communication that this makes possible. Clearly there must be immense implications for primary teaching here. At the very least the need for some careful analysis of the salient facets of the various thought games presently available should be a matter of some urgency. What are the fundamental procedures and standards that constitute these activities? Can we identify certain key concepts and ideas which could be progressively developed in children's think ng? If we can, is there any hierarchy between them which would indicate an order in which learning must occur? Rationalism emp asises a way in which we must understand this "what" of teaching before we can sort out the "how" of teaching

But there are further questions. What of the underlying motivation of each game - what kind of project with regard to reality does it express and what is its educational worth? As against the attempt of Hirst's hard rationalism to provide a formal blanket justification for the place of any knowledge game in the curriculum, the claim of Bailey's soft rationalism to decide this issue by the criterion of the contribution a form of thought has made to the attempts of humankind to understand themselves in their relationship to the world, suggests an important consideration in evaluating the wealth of activities and material available from an educational stand-point. So, too, is his gesture towards recognition of the importance of the individual's own understanding of things that are learnt. But the question remains as to the adequacy of the conception of these things that rationalism enables. Would a curriculum and approach to teaching that was founded on the principles and understandings of rationalism alone properly develop children's thinking and understanding? Or do they risk, as I have suggested, the development of fluency in the domain of conventional understanding at the cost of a certain poverty of subjective response - the result of which could on occasion be gross misunderstanding?

PART THREE: AN EXISTENTIALIST PERSPECTIVE

CHAPTER EIGHT

AN EXISTENTIALIST BACKDROP TO THINKING AND UNDERSTANDING

In the last part of the previous chapter I began to indicate some of the short-comings of the rationalist perspectives on thinking in its ambition to give an account of the whole of thinking. One of the main contentions voiced was its lack of appreciation of the importance f "subjective weight" in a person's understanding and general mode of relating to things, and its consequent overlooking of the role played by a person's own motivations in the meanings they are able to achieve in their thinking. In this chapter I intend to explore these notions further, and their consequences for how we understand the development of children's thinking.

Perhaps the first thing that needs to be emphasised as we enter this area of concern is that such a consideration undermines any notion that thinking proper is a purely intellectual activity that can somehow go on in splendid isolation from the personal life of the thinker. On this view, a person thinks from out of the particular situations in which they find themselves, and this means that integral to a person's thought are the emotions, attitudes, dispositions, and mot ves that constitute the way they experience these situations. In an important sense, thinking is a product of living, and not s me hing that goes on alongs de it on

some other "pure dimension untainted by the whole gamut f an individual's subjective concerns. It is **not** the creation of the generalised other' as R. S. Peters characterised the stance f rati nality, and its meaning and validity cannot be adequately thought of in the terms that such a characterisation invites. We are forced therefore to look beyond the confines of public rules of thought to the quality of the conscious life of the thinker, f we are to properly understand thinking and its development. This is a central (and controversial) point, and it clearly demands a much broader perspective than rationalism has, at least traditionally, allowed. Candidates claiming to offer illumination on the qual ty of human life are of course many and varied, but as previously mentioned, I intend to look at the contribution of one such perspective, namely that of existentialism, loosely conceived.

Existentialism and the extent of human freedom

Existentialism is a rich vein of philosophical and I erary thought which begins with the premise that 'existence precedes essence". This places it in direct opposition to much of trad ional metaphysics which is the legacy of Plato. Instead of supposing that thought has as its basic point of reference an underlying world of objective truths and essences which the operatin of rationality can disclose to us, it claims that the starting point for thought is our involvement in a concrete world of particular things and situations in which we conduct our everyday bu iness of living, and which is most directly revealed to us not by our intellect but by our present mood. That is to say, it is how we

are in the world in which we simply find our elves that constitutes the reality which is the touchstone of thought not a set of pure abstract ideas or "essences" which this world inadequately reflects. Sheer existence comes first, and is the context in which all our interpretations of experience are embedded.

Having pointed out this common element, it would be wrong though to think of existentialism as a single homogene us school of thought - any more than rationalism is. It represents rather a mood, a stance towards life, susceptible to many derivations - for example there are theistic and atheistic versions. But one preoccupation which runs through much existentialist thinking is the nature and place of human freedom and its affect on how we think and understand the world. If thinking is embedded in concrete human existence, and freedom or the lack of it, is an essential feature of this existence, then a fuller examination of this notion seems to be warranted. In what follows, I will draw particularly on the views of Martin Heidegger and Jean-Paul Sartre to illustrate this connection between thinking, understanding, and freedom, but first it is necessary to say a little more about the general character of existentialism in ts attempt to lluminate our situation. 1

The first point to emphasize is that in keeping with its tenet that existence precedes essence, existentialism does not attempt to produce abstract general, "objective", principles to explain or guide human behaviour. Rather it focuses on the issue of how ind viduals confront the problem of their own existence - what they are to do with their l fe in the real situations in hich they

find themselves - and their possible attitudes towards this. It f cuses, then, on the predicament of individuals in their unique lived situations, and in this sense embodies an anti-intellectual, anti the retical approach. Indeed, there is an important sense in which existentialism would regard, for example, a systematic morality with its assumptions of objective rightness and wrongness which can be encapsulated in a set of binding u iversal moral principles as something of a fraud - a form of self-deception.

For example, to suppose that somehow one's choice over a course of action was curtailed because moral principles demanded it, and concomitant y to think that in this way one reduces the level of personal responsibility for what one did, would be to deceive oneself over the extent of ones essential freedom for the way one conducts one's life. In this particular case the exi tentialist would argue that we have no ultimate guarantees that we've got the right moral principles, therefore we have still as individuals to a cept them, to choose whether to act upon them. And even if we accept certain principles in a general sense, we have still to decide how best to act upon them and to resolve possible conflicts between them. That is to say general principles have still to be applied to the particular situations in which individuals find themselves, and there can be no complete, preordained, recipe for life. We must each make our own choices. Here we have an example of existentia ism's sensitivity to, on the one hand, the uniqueness of each person and the situations he or she ives through, and on the other hand, the possibility of ignoring this un queness - of lapsing into essentially unthinking conformity to mass opinion and group norms and standards through apathetic obedience to social expectations and generalised application of principles irrespective of subtle nuance of each situation.²

Let me now explore this theme of freedom in a ittle more For the existentialist, integral to the very idea of distinctively human being, as contrasted with the way of being of, say, things or animals, is a certain sort of freed m. Unlike animals and things, human beings are not wholly causally determined, they could always have done other than they did. Whether they consciously acknowledge it or not, they are always in a position of choice. What does this amount to precisely? I think Max Scheler caught part of the meaning of this when he once referred to man as the animal that can say "no" to nature. He meant by this that humankind has the capacity not to act solely out of instinct and conditioned reflex. We need not automatically hit out when angry, grab food when hungry, be altruistic if this serves the survival of the species, etc. We can, as it were, say "no" to such basic impulses. (Indeed, this what a growing baby has to learn to do.) Human beings can do this because they have the ability to stand back from the immediate situation and become an object for themselves: they have a capacity for self-awareness.

Self-awareness, then, is an idea that is essential to the notion of human being. Through acts of detachment from on going events we can reflect upon our position in a particular situation - can reflect upon not only what is the case, but on what could be

the case, that is to say, on the poss bilities that are open to us. And the point is that once we do his we are unavoidably in a position of choice - like it or not Every act of choice, then, involves detachment of oneself fr m the on-going world and reflection on possible alternatives. And every such act of detachment and reflection condemns one to having to choose. To do nothing is itself a choice.

To summarise, then, existentialism emphasises the way in which human beings are agents in their own right: it is their essence not to be just passively carried along by events, by blind forces, like a dried leaf in the breeze, migrating lemmings, a herd of cattle. They can have purposes that they have chosen for themselves, and no matter what the objective situation, they always have this choice. There is always some room for them to choose.

But now, doesn't this emphasis on the pervasiven ss of human freedom run counter to comm n experience? Aren't there all sorts of situations which we would not naturally character se in terms of freedom? For example c nsider a wartime situation of possibly saving one's comrades but at the probable expense of one's own life, eg., perhaps one could warn them of their danger or escape oneself. Here the range of options is severely restricted, and neither of them is particularly pleasant. But there remains an important sense in which one is still free; there is a choice to be made, and the harder and more errous the choice, the more valuable it may be. Sartre would say that it is in situations like

these that one chooses oneself he sort of person one s to be say, her or coward - and thus give oneself meaning.

Or, to take another rather extreme situation, suppose one is told t do s mething at gunpoint - eg. "hand over the money. It seems n tural to say that one had no choice here, one was forced to do a one was told. But the exi tentialist would point out that even here there was a choice. We don't have to do what we are told to do at gunpoint. Suppose we were told to harm a young child - mightn't we then refuse, and risk the gun? This sort of point was recognized in the trials of Nazi concentration camp officers fter World War Two. De pite unpleasant, perhaps fatal, consequences of not obeying orders, they were accounted both responsible for what they did and blameworthy. The courts held not only that they could have done otherwise, but that they should have done so.

Inauthenticity: the denial of freedom and responsibility

The existentialist, then, argues that we are essentially free: no matter what the external situation there is always some r om for ch ice as to how we will respond to it. However, he would readily agree that it does not always appear this way to us in our everyday experience - we are often not consciously aware of this freed m nd do not use it. We tend to act automatically, and out of habit. Indeed, he would claim that if we survey human I fe in general, t is clear that for most of the time we try to hide this very fact of our existence from our elves. For example, Heidegger

claims that we 'flee in the face of the truth of our existence", our individual freedom. We deceive ourselves into thinking that we don't have this freedom. For most of the time we live "inauthentically", or, as Sartre would put it, in 'bad fai h". Why, acc rding to the existentialist, we should do this, I will go into presently. First, I would like to illustrate what existentialists have in mind when they talk of being inauthentic. Examples abound. I will start with some fairly specific ones, and invite the reader to consult his or her own experience to judge their plausibility and the general characterisation of human life that ensues. We deny our own freedom by:

Trying to get others to make our decisions for us: "what do you think I should do?"

Pretending things are beyond our control, for example by supposing that everything has been decided by "them" where we don't take the trouble to see just who "they' are, nd what influence we might bring to bear if we were determined enough.

Convenient fatalism: 'I know people say that smoking is dangerous but I believe you go when you are Called', etc. (This could be a genuine and deeply held belief, but somet mes it is more an excuse for not acting.)

Personality traits: "I just am the sort of person who loses his temper,is inconsiderate" etc., spoken in a way that suggests this just has to be accepted as an immutable fact.

Allowing ourselves to be determined by social stereotypes: "I'm artistic and therefore its natural that I should be temperamental" etc.

Pretending that problems, and therefore choices, don't exist through various forms of double-think. Sartre gives the example of a girl giving her hand to an amorous partner. She is enjoying the flirtation but doesn't want to face up to where it is leading the decision that has to be made as he gets more adventurous. She tries to distance herself from the problem by pretending that her hand is somehow separate from her, not hers to withdraw.

Now these examples are but limited instances of what the existentialist sees as being a very general condition. The extent to which we try to deny our individual uniqueness and our individual freedom to choose and thus shape our own lives is held to be extremely pervasive. According to Heidegger we are constantly tempted into the way of the "crowd". For the most part we allow our lives to be ordered in great detail by what "they" the anonymous "they" - say and think, and keep ourselves too busy with our on-going everyday affairs to realise this. We submerge ourselves in the world by living busily and unthinkingly according to the roles, stereotypes, expectations, with which the "they" provide us, and thus measure ourselves according to standards that are not truly our own. We lose ourselves in hobbies, pastimes, intellectual pursuits, and we make sure that we don't give ourselves the opportunity to genuinely about our own unique individual existence. Instead we

get comfortably carried along in what is essentially just "gossip" r "hearsay", and fashion in one form or another.

To take the former, for Heidegger hearsay refers to that frame of mind in which we hear things and just pass them on down the line, without really making them our own by testing their validity in terms of our own unique existence. We don't ask "What does this really mean for me?", or even probe the grounds for believing it. We just hear it or read about it, and say it or write about it - as perhaps in casual conversation, or in an exam answer. In this frame of mind we live on the level of an essentially shallow and averaged-off collective understanding - what "they" - "everybody" - currently understands, such that problems that might throw us back on ourselves get glossed over by easy talk and groundless speculation. We tend to talk and think largely in the third person.

In this way thinking is tranquillised, for such everyday understanding is never thrown into genuine puzzlement: it is all-knowing in the sense that it always has some ready-made answer up its sleeve to cover all possibilities. And the fact that, in truth, it is sometimes wrong doesn't put it out at all, for it is too busy with the next thing to acknowledge such faults. Think, for example, of the effects of a smear campaign: even if accusations are shown to be groundless something of the smear often sticks. In the gossip a web of unsubstantiated associations gets built up which are tacitly carried forward while the truth gets quietly left behind, inconsistencies passing unremarked or submerged by the pressure of whatever is now current. In this way of living its

what the latest talk says of you, rather than what you are, that matters. It conditions what you think about yourself as well as what you think about others.

Now we should be clear here that in making reference to the idea of the "they" when characterising this frame of mind, Heidegger is not suggesting that there is some ort of governing clique - some group of people other than ours lives - who are actually controlling us. It is rather that the "they' is an aspect of ourselves. It characterises a way of thinking in which we indulge which hides from us the possibility of having our own unique understanding f things, and thus allows us to escape facing up to our own unique possibilities and choices. But why should existentialists interpret things in this way? Why should we try to escape from our individual freedom? Their answer is simple: because full consciousness of our freedom brings with it full consciousness of our responsibility.

The existentialist holds that freedom and responsibility are inseparable: in acknowledging our freedom we are forced to face up to our own responsibility for all that we do. We can neither pass this off onto someone or something else, nor can someone or something else take it away from us. We are stuck with it. From the beginning we are thrown into a world not of ur choosing: we did not choose to be born into the society and time that we were born into; we did not choose the physical attr bu es of the bodies in which we will live ut our lives; things will h ppen over which we have precious little control eg., our plans may come to fruition or they may come to nought due to factors quite external to us.

Tomorrow one of us may be dead because someone made a silly mistake when they were driving. Yet in the midst of all this arbitrariness, we are free to choose and are responsible for what we do. There is nothing behind us, as it were, that we can fall back on to make our choices for us, tell us what o do, nor is there some pre-ordained objectively c mpelling ideal in the future towards which we must direct ourselves. At base, human existence is not reasonable, not rational, but absurd. We must make our choices and take responsibility for them in the face of this absurdity. It pervades all that we do.

It is interesting to note here that the was as true for the Christian existentialist, Soren Kierkegaard, as for atheistic existentialists such as Sartre. Kierkegaard held that Christian belief will never be something rationally or scientifically justifiable; if it were, it would no longer be a religious belief. Christian belief requires a leap of faith - and you are responsible for it. Someone who, say, turns to the life of Christian as a source of guidance is making a choice: they could have done otherwise. They reman responsible for all that they do in His name, or guided by His example.

Now clearly this account of human existence has important consequences for the idea of education developing children as individuals: part of our long term task would be to bring them gradually to an understanding of the nature, extent, and significance of their freedom. But also, and very much to our present point, it has large implications for the quality of thinking in which we might be encouraging children to engage.

For example, it would alert us to questions concerning how much of what presently goes on in schools has the quality of what Heidegger terms "hearsay" - how much is passed on to children in ways that do not invite them to evaluate what they have learnt in their own terms, and thus make it their own? John Holt (1990) and others have claimed that there are tremendous pressures on children in school to set aside what they really think in order the better to produce what they believe their teacher wants, or will keep them "in" with their peer group. In this situation, even the rebels rarely truly express themselves, but rather engage in a parallel form of "counter hearsay".

One would need to ask, then, is the time and trouble required to explore how one should be affected by what one learns - what stance one should take towards it and how it should influence one's outlook - too rarely given? If so, on this view, what is learnt is likely to remain lodged in the mind as so much information which will be applied in a manner largely determined by others and therefore with a diminished sense of personal responsibility. As such it is, therefore, only very partially understood, lacking the personal significance which would lift it above the level of what is simply current and 'known', or "knowable", by all. It remains thought in an averaged-off way, sustained in a way of thinking - a mind - which is essentially owned by the "they". For the existentialist, to reinforce this already pervasive frame of mind would be a charade of developing children's thinking and a denial of their potential for becoming truly responsible individuals. It would leave them

perhaps knowledgeable, but bereft of real meaning and personal integrity.

Authenticity

How, then, is the potentially vicious circle of inauthenticity and enmeshment in the "they" to be broken? For the present, let us return to the general, as against the school, context. To be shown the truth of one's situation, and to be encouraged to discuss and reflect upon the significance of what one learns is a start, but simply stated thus, has its dangers. A purely intellectual acknowledgement is not enough, and, like anything else, one might simply relate to it at the level of hearsay and fashion. (In this respect one might recall the trendy existentialist rebels of the 1940's and 1950's.) How does one achieve the deeper level of response that authenticity requires? For understanding that is properly grounded in the existence of an individual, an element of opportunism may often be involved.

Sometimes something just happens that throws us back upon ourselves and makes us withdraw from the crowd for a while. Perhaps some long cherished project suddenly collapses (or on the other hand suddenly becomes a real possibility). Perhaps one learns of the death of a close friend or relative, witnesses a fatal accident, or has a narrow escape oneself. Such experiences can cut the familiar everyday ground from under one, things taking on a slightly different, strange, aspect. In this way we may be brought to a mood in which the crowd can have nothing to say

to us, and we see the on going gossip and fashion for what it is; our comfortable and reassuring absorption in the ev ryday is disturbed for a short time.

It is at moments like these, then, that we may begi to come to ourselves, to seriously reflect upon the meaning of our own existence and what we really value in life. Acc rding to Heidegger, in this mood we can truly hear the call of our own conscience, and can be brought up against the one immutable fact of our life: our own death. We now confront this not in terms of idle speculation as to how or where we might die, but rather as a full conscious acknowledgement of the force of the fact that each of us will die. This, Heidegger holds, gives us a proper perspective from which to view our lives. And, unlike the way we might respond to it when we think in the way of the crowd, this concern with death is not to be dismissed as a morb d fetish. which is a way of turning our back on it. On the contrary, a genuine awareness of our own death individualises us because it forces us as individuals to face up to the problem of what we are going to do with our lives.

On Heidegger's account, then, the essence of human being is not so much that we are rational, symbol users, etc., though we are these things to a greater or lesser extent), but that we are mortal - meaning by this that we live in an awareness o the fact that we ourselves will die - though we usually try to c ver this awareness over. And the real problem for each of us t en - the problem that provides the context for all our cho ces and understanding is not what is the meaning of life where we lok

outside ourselves to others for the answer, eg., the church, scientists studying the nature of the universe etc. The problem is: what meaning will I give to my life? What will I hold true to in the light of the fact that I will surely die? This is held to be individualising because it is a question each person must answer for him or herse f.

Now it may seem at this point that all this is getting to be a far cry from children in the primary school. Surely, it may be argued, issues to do with our mortality and the meaning we give to our lives are matters for mature reflection by adults. Even if we were to concede that it might form a long term aim of some general notion of education conceived as personal growth, to attempt to introduce such issues to young children would be both beyond their understanding and a source of unnecessary anxiety to them, making them old before their time. A response to such objections, and some consequences for what it is to develop children's thinking and understanding in the primary school, is the subject of the next chapter.

CHAPTER NINE

SELF-EXPRESSION IN LEARNING

A résumé

In the previous chapter I tried to make the point that, to put it concisely, the development of thinking is a facet of mind, and that therefore the quality of such development is clo ely related to the quality of the conscious life of the individual mind which sustains it, and with which it is being integrated. Thus in wishing to understand the factors which constitute the development of thinking we must look not only at whatever logical structure there may be to the concepts being learnt - their public meaning - but also the subjective structure of the individual mind which is to receive these concepts. If this is so, it is clear that an important feature of this element is not simply its existing cognitive structure - an aspect much laboured by psychologists such as Piaget - but its affective structure: its stance towards what is being learnt in particular, and its attitude towards the world in general. These will be important elements in determining the "subjective weight" of what a person knows.

Thus, we must be alert to the different modes in which consciousness relates to things and the motivations that underlie these if we are to appreciate the way in which what a hild learns is affecting the sense of an organic life referred to in Chapter One. Our brief exploration of existentialism highlighted two uch broad modes: the authentic and the inauthentic, and I have tried to

sketch in a preliminary way some of the far-reach ng consequences of these two modes for an understanding of the development of thinking. However at this point objections were raised to the effect that it began to appear that the relevance of these for children in the primary age range is rather tenu us because of the maturity of understanding that would be required Let me now face these objections, and in the process attempt to relate what I have taken to be some of the insights of existentialism to the development f children's thinking in the primary school. To bring home the importance of these considerations I intend to refer to a an educational philosophy which is no doubt more familiar to many primary teachers than existentialism: the philosophy of ch d centredness.

Child-centredness and authentic self-expression

Child-centred approaches to education have now a long, if somewhat chequered, history which goes back some two hundred years or so to Rousseau. While during this period it has taken a variety of specific forms, and undergone various transformations, one enduring tenet lies at its kernel the idea that real learning involves the self-expression of the learner. That is to say, it makes a fundamental claim that while children may be brought to acquire all sorts of facts and skills through a process in which they are essentially treated as passive receivers, for them to achieve a proper understanding of what can be so acquired they need to relate it all to their own experiences concerns, and purposes. Thus they need to be personally active in their learning - to express

themselves in it - for understanding to occur, for it is held that under tanding is not something which can be simply 'mplanted from outside, it has to be constructed by the individual, and this requires that they are given the opportunity to pursue it in their own way.

From this basic assumption many things seemed to follow. There arose the notion that the curriculum should be based on children's current interests, and that they should have significant freedom of choice with regard to the direction their learning This in turn led to a whole gamut of take. recommendations as to how education should be organised eg., individualised learning; small group work; the integrated day; project work; learning through play, discovery and d scussion; practical experimentation; open-plan buildings; using environment as an important resource etc., etc. Perhaps most important of all were the seeming implications of child selfexpression in learning for the role of the teacher. On the childcentred model the teacher was required to relinquish the role of instructor and ultimate authority on what, when, how, and where things were to be learnt, and became more of a faci itator in children's efforts to pursue their own interests. By s me, this became interpreted as a role of such passivity that it consisted in little more than that of keeping some sort of general order in the classr om.

But, let us now bring to these issues s me of the considerations that I have drawn from existentialism. Frstly, let us look more carefully at the notion of self express n which I

have suggested lies at the heart of this whole approach to education. I would like to suggest that the existentialist perspective can help to clear away some common misunderstandings of this notion which have led sometimes to its rejection as an educational consideration, and sometimes to educational malpractice.

To begin with, the idea that self-expression is best achieved by giving children almost total freedom to do what they like simply pursue what currently happens to interest them without further ado - clearly would be a nonsense on this view. In truth, authentic self-expression is far more likely to be criticised for its austerity than because it is laissez-faire. There are several elements to this. Firstly, self-expression cannot be simply a matter of "doing one's own thing" regardless of the consequences. Authentic self-expression must involve that one acknowledges that one is the author of one's actions, and it is this sense of personal responsibility that gives them their feeling meaningfulness - as against simply carrying out someone else's instructions, or mindlessly complying with what is commonly expected. To deny respons bility for the consequences of one s actions both for oneself, and for others, is precisely to deny that those actions were really one's own. Self-expression, then, is not to be equated with unthinking spontaneity or unbridled egocentrism.

Related to this, existentialism also makes it clear that neither is self-expression just a matter of doing what one normally or habitually does. One may not normally be very self-

expressive in the authentic sense of this term: an individual may normally be caught up in the previously described strategies of self deception, unthinking conformity to social and peer group expectations, and the superficiality of "hearsay', such that awareness of personal choice and responsibility is minimal or altogether absent. Certainly many children will be liable to act and think in ways that simply reflect what happens to be currently popular or dominant characters in the class or at home, and to generally prefer the security of going along with the rest of the group. Further, it would be false to assume that all, or indeed very many children, will necessarily relish opportunities to exercise what powers they may have for positive initiative, independence, choice and personal responsibility - even over matters like when to sharpen a pencil! Indeed, some, at least, seem content to be told in minute detail what to do and can show signs of withdrawal or resentment when this is not forthcoming.

Finally, self-expression should not be equated (as it sometimes is) with being extroverted, "emotional", or "loud" - always ready with an opinion, always busy, active, and generally "prominent". Keeping silence, being thoughtful and reflective, are often more truly self-expressive. Indeed, the person with everything "up front" can be a parody of self-expression, such behaviour being more a substitute for having little depth of personal development. Clearly, then, and at the very least, a classroom in which children are encouraged to be self-expressive will not correspond to the popular caricature of a room full of n ise and blustering "busy-ness". Further - and this is very important - self-expression becomes viewed very much as

something to be achieved rather than something that will just naturally "happen" if we allow it

Now a l this ties in very closely with a point made earlier: the development of thinking is more than simply a matter of cognitive development. At the centre of the idea of quality of thinking and understanding lies a whole gamut of attitudes and dispositions to do with honesty, responsibility, openness, and reflectiveness. It will also be true that if real learning involves such self-expression it will carry with it an element of personal risk. To understand how this is so, we need to explore more fully the way in which self-expression relates to understanding, by pressing the question "How is it that things can come to have personal meaning ie., "subjective weight"?

In the discussion of "hearsay" in the previous chapter, it was suggested that things acquire subjective weight through the responsible placing of value on them. But in terms of what, can we value things? It would seem that the answer to this must be: the things that bring us into personal contact with the world in the first place - our pers nal (ie. authentic) concerns. It is these which allow things to matter to us and enable us to enter into a personally meaningful relationship with the world because it is only by expressing them and feeling the world's response (either actually, or through acts of imagination that we can feel what our thoughts really mean. This is our means of growing both in knowledge of the world, and in self-knowledge, for it is in this interplay that we learn the consequences of our thoughts,

attitudes, and beliefs, and thus allow them to be refined and enlarged.

For example, we will understand a situation as friendly and in such and such a way - to the extent that the expression of our genuine concern for friendship receives a positive response; an idea is illuminating to the extent that it satisfies our genuine concern to understand something; that the next train leaves in ten minutes matters to us to the extent that we are genuinely concerned to catch it. In other words, precisely how and why things matter to us personally - our own evaluation and understanding of them - is a reflection of our genuine concerns - either already present, or evoked by the situation itself. Learning through such self-expression, then, is "real" in a double sense: it has personal cogency, and it is "realistic" through its constant reference to the real world of things, people, and institut ons. Our concerns are, as it were, our personal bridge into the world.

To return now to the issue of personal risk: it is important to recognise how much such learning involves a personal investment - a certain giving of oneself. In much the same way that a novel comes to life - is properly "read" - only when the reader lends his or her life to the characters - in some sense lives their experiences and situations with and for them, feeling their hopes and fears etc., so the learner must give him or herself over to the encounter with what is to be learnt, giving it life by being prepared to go with it and personally accept what it brings. In opening oneself up in this way one becomes vulnerable, for failure will matter

personally, leaving one perhaps in mid-air, confused, at a loss, etc., and such an upshot is as likely as rapid success and satisfaction.

Further, in being willing to be personally affected by ne's learning, facets of one's own identity may be brought into question - hitherto firmly held beliefs and attitudes being disturbed. Indeed there is an important sense in which our personal identity largely consists in our beliefs, attitudes, and concerns, and is therefore always to some degree at stake in real learning. It is for this reason that educational learning has rightly been characterised as concerned with the personal growth of the individual - a point perhaps partially recognised by the National Curriculum proposal for a pects of what has been termed 'personal and social education' to be an important element in its cross-curricular dimensions and themes.

Clearly all this suggests that far from diminishing the role of the teacher in education, attention to authentic self expressin in children's learning and the quality of subjective weight in their thinking and understanding places great demands on it. The sensitivity and acumen required of the teacher in creating conditions conducive to such learning could hardly be over emphasised. Let me take this opp rtunity of spelling out in more detail what this might entail.

The role of the teacher in promoting real learning

I will begin by reiterating a fundamental point that existentialism makes about authentic self-expression: we cannot expect it simply to develop in children by itself, if only we'd "let' it. The attitudes that lie at its kernel are shaped huge y by the social environment in which children grow up. The attitudes that I have in mind here are ones such as a sense of self-worth, having the courage of one's convictions, tenacity in the face of adversity, confidence to question, take risks, face consequences, be constructively self-critical. These are all essent al if children are to genuinely engage in thinking and construct their own understanding of things in such a way as to endow them with subjective weight. And engendering them will call for great skill and involvement on the part of the teacher. To suppose that one can simply provide "a stimulating environment" and then sit on the sidelines would indeed be an abrogation of the teacher's responsibilities, and would be based on a misconception as to how it is possible for children's thinking to develop. It is undoubtedly true that children can and do learn a great deal by themselves without the direct guidance of adults. We must respect this. But equally, it is the case that there are limits and obstacles which it is unlikely or impossible for them to surmount without the aid of a caring adult.

We have previously noted (in Chapter F ur) that from the purely cognitive point of view, it is hard to see how children can acquire by themselves, through the use of their senses, many important concepts because of more abstract elements to them.

We can now add that from the affective point of view, while young children may have many positive attitudes deriving from their relative innocence and a degree of natural curiosity, mixed with these, and sometimes very prominent, will be others such as timidity, apathy, insecurity, hostility, boredom, complacency, superiority/inferiority, which can in varying degrees get in the way of authentic learning. Thus the teacher has a very active role to play in encouraging and supporting children; in provoking, questioning, suggesting possibilities. That is to say teaching on this view becomes an empathetic challenging³ of children to come to terms with, and extend, their own thoughts and feelings, and to create an ethos of mutual respect in which this can occur in a non-threatening way for both pupils and teacher!

This view, then, demands a balance between a respect for the thinking that children are presently engaged in, and a feel for the possibil ties for its refinement and enlargement. And it places at the centre of such development, not simply the structure of public disciplines of thought in terms of which rationalism sees the mind of the child is to become paterned, but the quality of the teacher-pupil relationship. If learning which arises out of authentic self-expression - ie., expression that gets below immediate and superficial wants and interests (which sometimes a cover or substitute for deeper concerns anxieties) - is to be fostered, then teachers must be prepared to enter a relationship of empathetic openness and responsiveness with their pupils. When this happens we are likely to have confirmed for us what we already know but too rarely properly acknowledge in terms of its centrality to education, namely that children are real people and that like real people, they often have deep-seated concerns about themselves and the world. For example, they can have worries about illness and death a project on "Health" with nine year olds in which I was once involved revealed that several children suffered from a longstanding fear of dying from cancer and, indeed, the prospect of death itself), about personal relationships and their breakdown, as well as those more conventional 'childish' concerns which we find it less threatening to allow them to express. These can all be normal, healthy, real, concerns and we do a child no service if we turn some into dark spectres haunting the edge of consciousness. Indeed, on the view we are now considering, the child's growth as a whole person precisely consists in their being honestly explored and better understood. Such deeper concerns become central to, rather than peripheral to, his or her education.

It becomes a vital role of the teacher, then, to help children to articulate their concerns without overbearing fear of censure; to formulate their ideas and responses, and to indicate possible ways forward. In this context, the vast resources of culture (itself a response to the whole gamut of human concerns and dilemmas) - from fairy tales to philosophy⁴ - can be drawn upon, but at need, ie., as and when they are felt to have a contribution to make to the child's own understanding, rather than being turned into a sterile strait-jacket of pre-specified teaching objectives. For teachers to be able to facilitate this, they will clearly need to have a sense of the vitality of culture themselves. This requirement has wide implications for their own education.

In a later chapter on structuring children's learning I will attempt to spell out in more detail some specific points that these considerations suggest for the activities of teaching. But at this juncture let me summarise a general claim that is being made by saying that we must beware underestimating the degree of seriousness that children are capable of, and the possibility that in their own ways and at their own levels their thinking and understanding is as much a response to the problems and dilemmas of the human condition as is that of adults, and is equally subject to the pressures and counter pressures that the notion of authenticity draws to our attention. Advocates of the existentialist perspective count it as one of its great strengths that it challenges us to see education - at whatever stage contributing to initiation into what it is to lead a human life - and not as something essentially hived off from the rest of a child's existence. This applies both "horizontally" in terms of the child's existence outside school, and "vertically" in terms f a past and an open future which holds possibilities wider and deeper than those encompassed by intellectual and career success, or contribution to economic growth. It reminds us to bear in mind that any education worthy of the name should contribute to equipping people to eventually take up the risk of their own lives and decide for themselves what they are to do with it, and what meaning to give it.5

A reservation

Our examination of an existentialist perspective on the development f thinking and understanding has highlighted the claim that fr edom and responsibility give subjective weight to learning, and thus make it "real". On this view great emphasis is placed on respecting the uniqueness of the individual and the role of the teacher in supporting this wherever it may lead. While such an approach clearly throws up many pressing organisational and resource difficulties (which will be addressed in Part Four), might it not also be criticised at the level of principle on the grounds that it will encourage thinking which is unacceptably self-centred, and perhaps insufficiently in touch with the social basis of thought and knowledge?

Now, it might be thought at this point that there is an obvious way forward. Why not simply combine the subjective dimensions of thinking highlighted by the notion of authenticity with the social/objective dimensions emphasised by rationality? In this way could we not have the virtues of both and arrive at a more adequate account of what it is to develop children's thinking and understanding? No doubt there is much to be said for this though we would have to be clear about exactly what we meant by it. To accommodate the demands of authentic learning it would be necessary for the bodies of rational procedures and knowledge to be drawn upon as a response to the requirements of a child engaged in exploring his or her own concerns. As they are incorporated into this activity, they will of course play a role in restructuring it, but the seminal point is that things are viewed

this way round: it is the context of the individual child's concerns, rather than the structure of public forms of knowledge viewed independently of this, that sets the agenda for learning. Teaching the public forms of knowledge in the context of respecting and eliciting children's authenticity would aspire to developing an understanding which is both rational and truly their own because it has become an integral part of their individual self expression. We would then be aiming at a form of thinking which we might term "authentic-rational".

Can we now suppose that in this way we would bring into harmony the main dimensions of thinking - the subjective and the objective? I think this would be premature. Certain pressing objections now appear on the horizon which when pursued gesture towards a further dimension of thinking and its development which is in increasing danger of being, if not entirely overlooked, seriously undervalued and distorted. I intend to explore this possibility in the next two chapters by examining some further facets of the issue of "self-centredness".

CHAPTER TEN

AUTHENTIC-RATIONAL THINKING

Throughout the account that I gave of existentialism, ran the theme that freedom brings with it responsibility. In the sense that this implies acknowledging that ne's actions have consequences, and that one is responsible for these, a certain amount of decentring is clearly involved. But is this sufficient to meet the objection that developing authentic thinking will lead to selfcentred ess? Well, it is not altogether clear that it is, for might one not accept such responsibility and yet still think and behave selfishly? One might recognise unpleasant consequences for others and not care, or only care if this in turn is likely to have unpleasant consequences for onese f. In other words one could be authent cally immoral. Now, this is clearly a serious deficiency in an account of what it is to develop children's thinking and is a further illustration of the way in which the whole issue is highly value-laden; not simply a matter of the development of a neutral intellect, but of motives and attitudes. Clearly then, and at the very least, an awareness of what is morally acceptable must be set alongside a concern for what is required for authenticity.¹

But there are other important ways in which the selfcentred objection may be pressed. One is as follows: mightn't authent c thinking (including n w authentic-rational thinking) take very narrow channels for children whose concerns turn out to be very lim ted, and thus remain oblivious to that breadth f understanding which is sometimes taken as the mark of an educated person? Further, just how far are we to take the idea that understanding s something the individual constructs for him or herself? Surely most of what we learn has its origins from outside ourselves: we do not, and cannot, invent it all for ourselves - a point heavily stressed by the rational sts we considered in Part Two. (See particularly Chapter Five.)

In responding to objections of this kind, I think it is useful to make a distinction between self-centredness, and what I will term self-referencing Self-centredness implies that one places oneself at the centre of all that is important, taking no real account of anything which lies beyond one's present desires and interests, and perceptions of what will serve one's own welfare. By contrast, self-referencing refers to a determination to understand what one learns in terms of one's own experiences, and to act in accordance with one's own beliefs and commitments. Self referencing acknowledges that one is a member of a culture, that there are duties and obligations, that there 1 a vast stock of knowledge and understanding to inherit and discover. It simply represents an aspiration to make this truly one's own by relating to it dynamically, ie. self expressively. It requires that each individual is, in some significant sense, the originator of his judgments concerning the meaning and value of what he is learning. This is the fundamental tenet of personal authenticity in learning. I would now like to say a little more about it.

Self-referencing and the appropriation of thought 2

Clearly the world of human meanings to which we wish to introduce the child exists quite independently of any individual child, and he or she has had no part in its creation. Without language there may be very little worthy of the name thought, and all of the situations and dilemmas a child finds him or herself in occur within the context of a pre-existing culture and are structured by it. Dilemmas over, say, who to play with, conflicting loyalties or duties, how to develop a new friendship or spend pocket money, are possible only against the backcloth of a set of inherited social situations and meanings. So talk of self-origination of thought clearly cannot be taken to mean that a child has somehow to invent all that he thinks for himself. Rather it expresses the demand that a child attempts to make what previously existed simply externally to him, his own. The issue is that of the appropriation of culture as against its passive acquisition or repressive transmission. And how do we make a fact or idea, or some other aspect of culture our own in this sense? The argument of the last two chapters has been that we do this by setting it in the context of our previous understanding, critically evaluating it, playing and experimenting with it, deciding on our stance towards it in terms of the things that matter to us in our own existence, and accepting personal responsibility for the consequences of whatever stance we adopt.

Now this is clearly often likely to be a lengthy and on going pr cess which frequently will never be fully completed or finally resolved - our current understanding and commitment often having a highly provisional status. Yet to the extent that we go through this self-referencing process we truly internalise what was once external to us and become the originators or authors of our own thinking, as against merely reflecting the thoughts of others. And to the extent that we have assimilated and used public f rms of thought in this process we would have achieved authentic-rational thinking. (Not that thinking could ever not involve social meanings to a high degree - as our examination of the rationalist position has shown. Though it remains unclear as to how far this point, of itself, need imply the intellectual disciplines in the way that say Hirst, and perhaps Bailey, assume. See, for example, Elliott, R. K. (1975) on this point.)

But now two further questions arise: firstly, can we really expect children of primary age to engage in such a demanding process of appropriation? And, secondly, is it appropriate to think that this degree of appropriation is necessary for everything that they may need to learn?

The answer to the first question is that the acquisition of this kind of understanding is always going to be a matter of degree, but to pursue it as far as one can - and at whatever level one can - is both to achieve the best understanding of which one is capable at the time, and at the same time to develop ones capacity for future understanding. By this latter I mean tw things. Firstly, there is the point stressed in Chapter Nine, and elsewhere, that quality of future understanding will depend upon the quality of that existing understanding which currently

constitutes the mind of the learner and with which it is to be integrated. A chi d whose current understanding of an area is, say, largely mechanical is likely to achieve a very different kind of grasp of further material to the child for whom the issues are felt. Secondly, I refer to the on going enhancement of one's ability to engage fully with whatever one is learning through developing more demanding expectations and attitudes towards new experience. That is to say, authentic understanding is not so much the acquisition of various items such as sets of concepts, procedures and truth tests, as of an outlook - a way of being. As such, it will hugely affect the sorts of, and the quality of, situations one is likely to provide for oneself in the future. child who has grown confident in asking questions, critically evaluating evidence from her own perspective and reflecting on the significance of what she has learnt, has a very different attitude towards life compared to the child who basically seeks accepted answers. She also makes very different demands upon her education and will tend to direct herself towards, and to create, different kinds of experience with n it. In these related ways, then, the quality of a child's learning is largely a function of what that child brings to his or her learning - their present mode of thinking which conditions their interpretation of what they encounter and the depth of their engagement. As human beings, we are understandingly. For the sake of quality of understanding in the future, as well as in the present, then, it is important to encourage the sef referencing mode.

Now of course, d'fferent children will differ in their aptitude and progress with regard to the self referencing of thought. As

achievement here is not simply a matter of cognitive ability, individual temperament and attitudes deriving from varying home backgrounds and cultures will influence the disposition of children to engage in such thinking. But this accepted, it is surely important that all children should at least be set on their way towards authentic understanding, and that we do not attempt to quickly prejudge how far they may get if they are given time, encouragement, and appropriate support. The point previously been made that all children have personal concerns however fluctuating and inadequately articulated they may sometimes be - in terms of which they can relate to and begin to evaluate what they learn. If this is so, the chief question, is not whether children can make progress in this direction, but whether we as teachers, think it worth the time and effort to develop it in the face of other pressures (such as feeling we have to "cover the ground" - as determined say by a national curriculum, or other guide lines, devised independently of the particular children we are teaching).

Further, there is evidence to suggest that quite young children can engage in a surprisingly full way with important basic issues about human life, and that they can do it with a lack of prejudice and freshness that many adults find hard to achieve. Quite a startling illustration of the latter is cited by Gareth Matthews (1980, p. 28):

"Ian (six years) found to his chagrin that the three children of his parents' friends monopolized the television; they kept him from watching his favourite program. "Mother," he asked in frustration, "why is it better for three people to be selfish than for one?"

It is perhaps understandable that the mother was left nonplussed by this interesting question. Here the basic tenet of utilitarian sm - the ethical theory which holds that we should endeavour to act so as to promote the happiness of the majority (and which it often seems natural to allow to guide our actions) is turned on its head, and one of its great defects - that it can be seen as an appeal to selfish motives that could result in the tyranny of minorities - is revealed. It is not of course being suggested that examples such as these (and Matthews provides a good number) show that children are consciously evaluating philosophical theories, but that their thinking can be sensitive to, and display some very telling reasoning with regard to, issues which are the subject of such theories and which are basic to important aspects of human life. There would seem to be something decidedly anti-educational about a system that intentionally or otherwise spurned such potential.

The second question concerning the appropriateness of aiming at a high degree of self-referencing in some areas of learning s an interesting one. In response, it is probably not possible to generalise very far, except to say that while it would be both unnecessary and impossible for all a person's understanding to have this element of inwardness, for which parts it should be sought and which not, must in large part depend upon those concerns which are central to a particular individual.

There are doubtless countless everyday things of which an individual needs only a token or working understanding in order to get by and be able to devote himself to those things which are, r sh uld be, of m re fundamental personal significance to him. For example, it is not at all clear why every child sh uld develop an authentic understanding of, say, number bonds. It may be sufficient for him to be able to operate them in the everyday contexts in which they are useful without them acquiring a deep personal significance for him. Similarly, there may be other things of which it seems odd to suppose this kind of dimension is even intelligible, under normal circumstances, eg., understanding certain basic rules of sentence construction or conventions involved in writing a letter, or using an index. These are simply important conventions that a child needs to be ab e use. An element of authenticity remains desirable in that he needs to see the point of learning them, ie., how they are useful to him, but their point is not itself of the kind that illuminates human experience.

On the other hand, there would seem to be many things which one cannot be said to understand at all properly if this element of broader personal significance is absent. For example, one could have a near perfect intellectual or technical grasp of the theory of evolution, or statistics on lung cancer or AIDS, the beliefs and achievements of one's own and other cultures, important historical and fictional characters and situations, but if this in no way affected one's out ook on certain aspects of life, one's understanding would be seriously deficient and would have contributed nothing towards one's personal growth. To take a

specific, and I suppose now quite well worked, example, ne could acquire all sorts of facts and figures about the First W rld War, but to remain essentially unaffected by this knowledge, to have received it in a way that left one unmoved by the conditions under which this war was fought, the scale and pointle sness of the suffering and loss of life, would be grossly mis educat ve. It is not simply that as A. N. Whitehead once put it 'A merely well informed man is the most useless bore on God's earth" (notwithstanding the fact that he'd doubtless do well on Brain of Britain or "Mastermind"), it is that such learning will not have educated one, for the significance of knowledge of this kind lies precise y in what it implies for our conception of our human situation and the course of our actions.

Thus while there may be a large number of things for which, because of their limited importance in a life, a relatively superficial and depersonalised understanding is sufficient, there are also many things that are frequently taught in this way, but which are shorn of their educational worth if they lack subjective weight This idea has been forcefully expressed by Kierkegaard (1970) in the following way:

'I should suppose that education was the curriculum one had to run through in order to catch up with oneself, and he who will not pass through this curriculum is helped very little by the fact that he was born in the most enlightened age."

The point here is that accumulation of more and more public knowledge of itself does nothing to further our understanding. In many ways we already "know" too much, and our impressive stock of knowledge sometimes beguiles us into thinking that if only we had more of the same kind we could solve all our problems. But what we more often desperately need to do (both as individuals and as a people) is to "catch up" with what we already know, and attempt to think through what it means - to us as individuals, and for human being as a whole.

Depth versus breadth of understanding

This last point really leads into the third aspect of the criticism that authentic thinking will lead to self-centredness: a recurring anxiety that children will be in danger of devel ping a narrowness of knowledge and understanding if they learn only that which arises out of their own concerns, and become involved in the time-consuming process of self referencing. There are two things that need to be said immediately to this, before raising a more serious dilemma that this point presents to us.

The first is a reminder that we should be wary of supposing that children's real concerns - as against their more superficial wants and surface interests - are likely to be narrow in scope. This point was developed in the previous chapter.

The second is that, of course the teacher has a role to play in provoking and stimulating new thoughts and concerns. Developing

a ch ld's authenticity is not to be equated with stultification and teacher passivity - How could it be when so many other aspects of a ch'ld's experience and social environment are actively shaping his or her ideas in all sorts of ways - sometimes for the worse? As has been previously emphasised in the notion of "empathetic challenging", respect for authenticity is **not** advocation of passivity and the laissez-faire, but is more to do with accepting that the child is the final arbiter of what is making sense, and the conditions under which things can acquire personal significance. Children's concerns are the touchstone of their learning, not its completion.

We now come up against what I think is the real issue at stake: the notion of self-referencing places emphasis on the value of depth of thought at the expense of breadth. But instrumental considerations apart, why should breadth be preferred to depth? Straight rationalism in both its "hard" and "soft" forms would claim that lack of introduction into a wide range of areas of knowledge is an obvious deprivation, and runs counter to a child's "entitlement". But, on the other hand, it seems plausible to argue that real understanding and its associated insights, satisfactions, and challenges to think, only come with depth and sustained involvement with a relatively limited range of issues. Heidegger once made a remark to the effect that every great thinker thinks one thought, rethinking it and re-expressing it again and again from a variety of perspectives and through its many ramifications. Surely there is some truth in this which has app cati n to lesser mortals? Would it not be thinking of this sustained and focused kind which would generate the attitudes necessary for full

engagement with an issue - including the authentic evaluation of what one learns -and which therefore con titutes personal growth and carries one fruitfully into new situations? Such attitudes are in stark contrast with those which go along with compendium knowledge acquisition. In his famous attack on the transmissi n of "inert ideas" in education A.N. Whitehead (1932, pp. 2-3) beseeches us to guard against such "mental dry rot":

"We enunciate two educational commandments, 'Do not teach too many subjects," and again, "What you teach, teach thoroughly.'The result of teaching small parts of a large number of subjects is the passive reception of disconnected ideas, not illumined with any spark of vitality. Let the main ideas which are introduced into a child's education be few and important, and let them be thrown into every combination possible. The child should make them his own, and should understand their application here and now in the circumstances of his actual life."

In the light of such considerations, and in a situation where in reality a choice is to be made between children having breadth of knowledge as say advocated by Hirst or Bailey, or the nine foundation subjects and myriad attainment objectives of the National Curriculum, and quality of understanding in terms of depth of personal significance required by authentic learning, why should we assume that the latter constitutes a greater deprivation than the former? Is someone who, say, knows only enough maths, science, history, and geography to get by in a practical everyday way, but has a deep personal understanding and love of literat re

and music, really deprived or less adequate as a person compared with someone who, relatively speaking, has a superficial formal understanding of all these things? For the moment I will simply leave this as an issue for the reader to consider.

But such a me of thought does suggest a certain general methodology for producing the content of a child's education. It is what one might term the method of "depth sampling". By this I mean that instead of trying to cover the seemingly endless ground of what "in the abstract" may be thought to be important for children to know, we treat what is taught as exemplars: as themes that have the potential to illustrate both what a broader area of study has to offer in terms of its human significance and something of its depth structure (central concepts, ideas and procedures) so as to encourage early active engagement. In keeping with the notion of self referencing, the detailed selection - ie., what becomes treated in this way - crucially will depend on its potential to develop and refine that which motivates children's deeper interests and concerns. But in this way it may be that a fair degree of what is representative of a broader curriculum may be achieved at a level which is intellectually challenging and personally satisfying. For given that culture has itself grown out of attempts to articul te and understand human concerns - and as we have noted, in turn conditions the kinds of concerns it is possible to have - it would be odd indeed if there was not potentially a large degree of coincidence between the more developed forms of thinking within culture and the felt needs of children in pursuing their concerns.

Now I suspect that something of this approach is not such a far cry from what many of those who originally sat on the separate subject committees to produce proposals for the content of the National Curriculum sometimes had in mind - at least in some degree. But the cumulative effect of their proposals, and the interpretation and modifications sometimes subsequently placed on them, is in danger of allowing this element to become swamped in the resulting overall package. It is, then, of the greatest importance that such considerations are reasserted. Not, of course, that it is being supposed that they can change - in the short term at least - the legislated curriculum framework with which the primary school has now to comply. But they may affect the spirit in which it is interpreted in practice and this could be of the greatest importance. What scope there may be for this is taken up in Chapter Twelve.

CHAPTER ELEVEN: POETIC THINKING

"The world is too much with us: ate and soon, Getting and spending, we lay waste our powers; Lit'le we see in Nature that is ours; We have given our hearts away"

Wordsworth.

In the previous chapter I looked at some ways in which the objection of self-centredness might be pressed against authentic-rational thinking. Is the notion of self-referencing - conceived as a determination not to subject everything to personal whim, but to refer everything to one's self so that one genuinely responds to what one encounters and thus make one's understanding of it one's own - sufficient to characterising the kind of thinking and understanding with which education should be primarily concerned?

As it stands it is not clear that it is. Just as straight rationalism seems to pay too little attention to the element of individuality in thinking and the importance of subjective weight in a proper understanding of non trivial things, so the notions of self expressi n and self-referencing which are at the centre of personal authenticity and authentic rational thought might seem to underplay a further essential element, namely that of receptivity. What I have in mind here is a consideration which we have 'n fact already briefly touched upon in the discussion of the role of the teacher in Chapter Nine, and which is much amplified by 'philosophers of Being. It is an aspect of the self-

centredness issue which is perhaps best brought out by again making reference to some of the features of rational sm noted in Part Two.

The "calculative" and the "poetic"

It will be remembered that one of the main ideas to emerge from the analysis given in Part Two was that rationality is not a neutral form of thinking: it involves, often implicitly, a certain project with regard to the world. It seeks to explain, predict, evaluate, and control the environment - ie., it is essentially manipulative in motive - and to this end it represents things to itself through the use of categories which define things in standard ways. That is to say, it turns things themselves into objects of thought, which have the properties of the categories to which they have been assigned. Now it has been claimed that this way of thinking is fundamental y unreceptive in that it closes off much of the many sidedness of the things with which it deals What can appear for such thinking is only those a pects of the thing pre-specified by the categories applied. Thus we may be predisposed to see, say, a flower not simply as it is in the fullness of its standing there, but as an exemplar of a certain genus, exhibiting certain pre-specified characteristics, the product of a certain evolutionary process, the source of some drug or other commodity, etc. Similarly, it may seem, by requiring that thinking reference things to the concerns and previous experience and understanding of the individual, may not authentic learning also be blinkered to the fullness of wh t is actually present? May not things be seen in terms of a relatively narrow set of individual aspirations and interests which are possibly even more instrumental in stance than those of the public forms of rationality?

What seems to underlie the bjections implied by these questions is some idea that it is possible to relate to things in a more open and unprejudiced manner which will thus allow them to show themselves more fully. That is to say, there seems to be a claim that we can have a more direct awareness of things where what we perceive and think is not exclusively mediated by - and therefore limited by - the public categories we employ and the idiosyncratic or social purposes we may as individuals pursue. Rather there is a form of thinking which springs from things as they are in themselves. Such thinking has been termed by Heidegger 'poetic" (also "meditative") and the claim would be that it involves a mode of relating to things where both rational categories and personal self are in some sense, and to some degree, transcended. All forms of thinking have to make distinctions. What is in question is t e extent to which they are essentially a matter of social conventi n and imposed on reality as against an expression of things themselves and thus truly responsive to reality.1

Lest all this is beginning to sound rather esoteric, let me attempt to give some examples of what might count as poetic thinking. Perhaps one of the most powerful ones is when we are struck with wonderment and awe at some aspect of Nature. In such experience we seem to leave behind both our self-orientated

interests and our normal everyday categories in terms of which we manage things, and become absorbed by the phenomenon itself. We experience something whose presence by far outstrips our ability to fully grasp or articulate it, and in some sense we simply give ourselves over to celebrating the experience itself. We are there in the experience rather than somewhat abstracted from it, as in the case of rational scrutiny, and we are there in a way determined more by the quality of the thing we are relating to than by our personal concerns, as in what I have so far characterised as authentic thinking. An acute awareness of this active "presencing" of things fills the poetry of Gerald Manley-Hopkins:

As kingfishers catch fire, dragonflies draw flame;
As tumbled over rim in roundy wells
Stones ring; like each tucked string tells, each hung bell's
Bow swung finds tongue to fling out broad its name;
Each mortal thing does one thing and the same:
Deals out that being indoors each one dwells;
Selves - goes itself; myself it speaks and spells,
Crying What I do is me: for that I came. 2

And then again in the following thought which expresses something of the sense of respect and responsibility that is part of such awareness:

To mend her we end her,

When we hew or delve:

After-comers cannot guess the beauty been

Ten or twelve, only ten or twelve

Strokes of havoc unselve

The sweet especial scene,

Rural scene, a rural scene,

Sweet especial rural scene.

A similar phenomenon of becoming involved in the particular can occur in the contemplation of a work of art. Somehow we can get drawn into the work in such a way that our habitual categories and concerns fall away and we experience what may be a familiar thing or situation afresh - see it in a way freed from our everyday associations which average it off and turn it into an ordinary and unremarkable object. The paintings of Vincent Van Gogh are perhaps particularly powerful examples of attempts to portray the vital presence or "thingness" of things. Take his painting of a chair. We are not invited to see it as simply an instance of something you sit on, or a chair of a certain sort as in a catalogue, but as this chair with its own unique vibrant qualities - an ambience into which we can be drawn. Entering into a novel, poem, or piece of music has a similar transporting quality which frees us up to receive what is there in its own right

And again, poetic experiences are sometimes had in the context of human relationships. For example situations in which we find ourselves genuinely empathising with another, seeing life from another's point of view, or a love that is whole-hearted, have as a central feature not what we impose on another in s me prespecified way, but what we receive 'n our willingness to make ourselves vulnerable and respond caringly to what is there. We do

not order anything up, rather we are held in the sway of the person as he or she is in themselves. But perhaps this is all now beginning to sound rather precious. Let me refer to some examples of the kind that Heidegger uses which have a more earthy" feel to them.

Heidegger tries to refer us back to a time when our way of relating to things was less aggressive than it is in modern technological society - a time when we took on the role of something more akin to creative midwife to things as against wilful challenger and consumer. For example, he invites us to consider a contrast between the way things were produced by the craftsman of older technologies and the process of modern manufacturing. He takes the example of the making of a sacrificial silver chalice, and suggests that there was a time when the silversmith would not have been conceived of as the cause of the production of the chalice, any more than the midwife is the cause of the birth of a child. Rather they both have a role of "coresponsibility" with other powers that are involved, and bring forth something which was in some sense already there, inchoately. In the case of the silversmith this is expressed through his working with the material so as to bring out its own quality its texture, lustre, colour - and with the creative forces of the tradition, and the culture, within which his work has meaning. He does not decide and fix beforehand the precise properties of the metal required, what the chalice is to look like, what is or is n t sacrificial, but participates in the interplay of these enabling forces - responsively gathering them on a particular occasion so as to bring this chalice into appearance. His creativity and his

making are a result of his receptivity, his evolving feel for the powers he is working with and wh which he assumes joint responsibility for what is made. And his essential att tude towards things is one of "working with" co-operation with Nature and culture rather than 'working upon which is an expression of self-will.

This, Heidegger feels, can be contrasted with modern manufacturing which fabricates objects according to some pregiven blueprint set up by man's self-will, whereby the object is the product of a challenging rather than a responding and the chief problem is how to produce the maximum yield for the minimum outlay. We can perhaps see this stance as being in part reflected by the kinds of materials modern making favours - such which are almost infinitely malleable and require a minimum of "working with" in the sense outlined above. We try to design materials to satisfy our purposes rather than allow our purposes to be modulated by, and find creative expression through, the qualities of the materials. Our attitude is n t one of an on-going responding during the process of making, but of demanding and imposing: What is wanted in all its s gnificant detail is decided in advance of the process of making, and Nature is then challenged to provide the necessary resources for the processing which is to be set in train.

A parallel can be found in modern agriculture. Here again, the stance is basically demanding and manipulative. Our attitude is one of engineering materials (eg., p ants) and condit n to meet our self-given purposes in as efficient a manner as possible.

Factory farming techniques in meat and egg production perhaps provide particularly gross expressi ns of this general underlying attitude. Heidegger (1954b) suggests a contrast between this and the way in which we engaged in farming in earlier times:

"The field that the peasant formerly cultivated and set in order appears different from how it did when to set in order still meant to take care of and maintain. The work of the peasant does not challenge the soil of the field. In sowing grain it places seed in the keeping of the forces of growth and watches over its ncrease."

The central point that Heidegger is trying to draw to our attention here is not that there was some "Golden Age" in the past to which we should try to return, but simply that with older technology our way of relating to things is still to await and respond to Nature's granting - a di posing in her own way and in er own good time, in which her integrity is thus preserved and revealed. In such a way of relating our being is very much bound in with Nature rather than being et apart and impo ed upon it. And in this way our thinking is more respectful and revealing of what is there, for what is subjugated does not reveal itself, and we do not live in harmony with some hing by seeking to manipulate, "manage", and master it

These, then, are but examples of two distinct ways of relating to the world. One is termed by Heidegger "calculative' because it tries to "reckon everything up" in terms of categories and theories which serve its various self given projects. This would include

many aspects of rational and authentic rational thi king as characterised in previous discu ion. The other, as we have noted, he termed "poetic" because of its receptive and open tance to things themselves. There are many other examples that ould be drawn upon to illustrate how these two attitudes towards the world can express themselves in everyday living. I will take one more: the way we think of each other. In some context we are increasingly encouraged to think of people as a resource, as "manpower", with all that this brings in its train for how they should be treated. And certainly there are important parallels to be drawn here, I think, for the ways in which we can conceive of the teacher-pupil relationship in the context of developing children's thinking. The possibilities involved here will be expl red in later chapters. But what must be said at this point is that, of course, in concrete human existence these dimensions of thinking are matters of degree, and it is not to be supp sed that they exist in their pure forms. Much is hybrid. Rather, the claim is that we can formally distinguish between such modes, hat they represent significantly different ways of relating to and revealing the world, and that in modern technological society the calculative mode is very much in the ascendent - to the extent even that it makes the poetic appear unfami iar and archaic, or worse, a frothy irrelevance to the real business f life.4

It is perhaps possible to summarise the differences between calculative and poetic thinking in he following way. Firstly their stance towards things:

CALCULATIVE	POETIC
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self-purposeful celebratory

goal-orientated openly curious, wondering

analyses things into problems intuits the wholeness of things and receives them as they are

turns things into defined stays with things in their objects manage ble, familiar inherent strangeness

Secondly, the two kinds of thinking can be characterised by the feelings and aspirations that they e icit:

CALCULATIVE

satisfaction as a result of sense of mystery, awe, sense of sorting things out, getting things ordered, made evokes feelings of attunement clear, transparent

effects things affected by things

seeks control allows itself to be vulnerable

makes statements "sings", "says", what is

seeks truth as c rrectness seeks truth as revealing

Poetic truth

The final reference to different kinds of truth in the above list is very important, and in many ways lies at the ha e of the differences between the two modes of thinking, and what would be involved in developing them. Rational thinking seeks to express itself in statements which are correct - meaning by this that they have been tested for their validity against public tests for truth. In principle a statement is either true or false in these terms; it is assumed that at the end of the day there is a correct answer (even if we don't know what it is at present). In contrast to this, the poetic view of truth is simply that of things coming to disclose themselves as they are - rather than how we choose to represent them to ourselves through statements of what is the case in the ways, for example, emphasised by Paul Hirst. There are no correct or incorrect answers because there are no answers at all: in this mode we are not in the business of calculating - we do not set ourselves specific problems to be resolved. We are not to refer to Bacon's characterisation of modern experimental science at its inception - "putting Nature on the rack" of interrogation, but simply trying to be open to what is there and allow that reality to affect us and provide us with a sense of what is fitting and what not.

Expressions of poetic thinking, therefore, do n t give us inf rmation - data to be inserted in some argument, theory or formula - but in essence simply "sing" or "say' things so as to point us to things themselves and inv'te participation in them. If they were simply informative statements in the rational sense,

the idea of, say, returning to a poem, piece of literature or artwork, or listening to a song, again and again would be as senseless as returning to a reference manual whose information we had already assimilated. In the poetic mode an expression such as "trees dancing against the sky" states no proposition to be learnt up, gives no information which is correct or incorrect, it simply says or sings an aspect of experience which we can enter into, celebrate, be affected by. The pre-Socratic philosopher Parmenides described this thinking as a native "letting-lie-beforeus and a taking-to-heart". It is only when we fall out of harmony with things that we set them up as problematic and in need of developing this kind of thinking will be a manipulation. Thus very different enterprise to that of developing rational thinking. But before we move onto this issue, we must confront a prior question: why bother? If poetic thinking does not provide us with answers to our problems what use can it be, why should it be considered at all important enough to spend valuable time on in school?

The "use" of poetic thinking

There are a number of things that may be said in this regard. Perhaps the first is that to raise the question in the above form is already to have taken up the stance of calculative rationality: we are seeking an instrumental value for such thinking in order to justify it. From the perspective of poetic thinking this is to have begged the fundamental question about the purpose of thinking, and its reply would be that it may be less a case of how we can

use such thinking, and more a case of how it might use us. That is to say the question is raised as to why we should assume that the only way of making progress, of ameliorating the conditions in which we live and giving our lives meaning, is to assume the mastery. There are traditi ns which hold that the inspiration which comes from service to something recognized as infinitely greater than ourselves, and through which we achieve a freedom, dignity, and worth larger than any we can manufacture for ourselves, is a fuller realisation of human nature. Further, have we not at least been given pause to question the manifest success of the calculative aspect of rational thinking in terms of its devastating consequences for the environment? Does Heidegger put it too strongly when he claims that before we annihilate things in actions we have already annih lated them in thought ie. turned them into objects at our disposal, and the latter is a condition of the former occurring?

The central point in all this is that surely we need to consider carefully the mplications of our basic tance in thought for our relationship with all around us. Does t embody a fundamental lack of respect for things themselves? If, however implicitly, we assume the earth is there for our use, that we can possess it and have the right to interrogate and exploit t so as to fulfil our own self-given purposes, clearly this sets as a norm a very self-centred view of human being which will colour our perception of all that we do - lead us to identify problems in a certain way and seek solutions of a certain kind. For example, increasingly, conservation and environmental issues would be described and weighed in terms of what is thought to be to the long term advantage of

human beings, rather than of things themselves. The motive for protecting endangered species would be largely in terms of them having some as yet unknown potential to serve us in some manner, and attempts will be made to manage the problem accordingly - maybe by creating convenient sanctuaries or reserves. Rather different solutions might suggest themselves if a genuine respect for things themselves was operative - approaches that involved modification of human aspirations so as to enable us to live harmoniously alongside things. This could be very important. We have little opportunity to develop a proper feel for things hived off in reserves - indeed, in this way they are turned into curios and even more forcefully set up as being at our disposal and requiring our management.

And there is another danger. Such fundamental self centredness leads to a form of nihilism which is already manifesting itself in our everyday lives. The rampant growth of consumerism, it might be claimed, is only the becoming explicit of underlying motives which have always been prese t implicitly in rational calculative thinking. Material growth and consumption becoming ends in themselves is simply an expressing of the self-will which is embedded in such thinking, and the ultimate sterility that it leads to is simply a feature of a thinking which is increasingly closed in upon itself and can no longer be inspired by meaning and values outside those it has provided for itself. For inspiration precisely consists in being held in the sway of something beyond oneself, outside the current compass of ones thinking - something distinctly other - which thus brings a new dimension, vital and strange, into our life. A hinking which

pred sposes us - no matter how covertly - to seek control by constantly pre-shaping our interactions is in grave danger of retracing increasingly hollow circles. Any originality that it posses es will be of a peculiarly constipated kind.⁵

Thus it may well be, then, that a recognition of poetic thinking is needed not just for our material welfare (and possibly survival), but for our spiritual welfare. To meet the problems that now confront us we may need a radical change of heart - a radical de-centring which rationality in its modern calculative form systematically denies, but covers over by its claims to be objective and impartial. Finally, on a somewhat less elevated plane, the sense of wholeness that poetic thinking can give may be essential to our sense of personal well-being. This is nicely described by William Barrett (1978) in the following way:

"I take walks in the woods near where I live; and if I take a walk in those woods in an afternoon I am thinking all the time. But if I come back, and someone says: 'What problem did you solve?' I would say: 'I wasn't doing that kind of thinking. I was ruminating, orientating myself to myself and to Nature.' I feel much more sound and whole when I come back from that sort of reflection. But you can imagine the other person thinking to himself: 'That's very strange. He says he was thinking, yet he wasn't considering any problem and he didn't calculate anything."

The value of poetic thinking lies not in specific and tangible results or conclusions that f llow ogically from it, but rather from

a sense of attunement, place, and fittingness that it engenders, and within the ambience of which, the rational-calculative systems and arguments in terms of which we have become habituated into thinking of ourselves, need to be re-located in order for their broader significance to be understood and for them to become re-humanised in a deeper sense. This re-orientation is often very subtle and not something of which we may be very consciously aware. Yet it can on occasion be very powerful and explicit as when for example, the image of a starving child may cause us to adjust our sense of financial or political priorities, or that of a single oil covered bird our sense of what risks we should be prepared to take with the environment.

Poetic thinking, then, can help to reveal the ground in which our rational calculations are rooted and give us a sense of our own rootedness - or its lack. Through developing our capacity to enter into the very being of things themselves - to be affected by them - we apprehend the underlying qualities of the human world which shiuld ultimately condition our purposes and give weight to our reasonings.

Developing Poetic Thinking

If the central features of poetic thinking are openness and responsiveness, it does not make sense to conceive of its development in any pre-structured way that parallels the way we might still be tempted to think of the development of rational thinking. It is doubtful that we should conceive of the development f poetic thinking as a series of definable steps at all

because it does not have at its kernel a set f logical relations articulated in conceptual schemes. Rather we are concerned with the degree of deve opment of certain qualities and attitues which the child exhibits in his or her natural dealings with the world. I attempted to list these qualities of thought ear er in this chapter, but how are they acquired?

Well, to begin with, clearly not simply through instruction: being told about such attitudes and having them explained in some formal way is a far cry from actually acquiring them - as we know only too well in an analogous way in the area of moral education. And unlike moral education where social pressure is constantly present and sanctions can be applied to "correct" wrong behaviour, there are no such unpleasant consequences to be immediately felt for ignoring the poetic. Qu te the reverse. In terms of the currently dominant instrumental values of efficiency and mastery, those attitudes which I have associated with the poetic appear as something of a dispensable side-show. Exhortation, then, has small chance of success, and indeed would in any case be contrary to the nature of poetic thinking itself. Rather, it would seem, the child needs to rub shoulders with people who themselves value such thinking, who all w it to influence their lives: give it space and time somewhat in the manner discussed earler in relation to initiating children into the living traditions of thought described by Michael Oakeshott. (See Chapter Four.)

Thus, teacher and children might share a sense f wonder and astonishment at, say, the sheer variety, complexity and beauty of micro-rganisms in a drop of pond water; the sheer magnitude of distances and masses in human terms in the solar system or the ga axy, the sheer vibrancy or intensity or softness of a colour; the sheer ambience of a particular place or situation; the sheer courage, tenacity, selfishness, etc of an historical or fictional character; the sheer evocativeness or transporting power of a piece of mus c; and so on. Throughout, the power of metaphor to mix, and break the hold of, rational categories so as to invite fresh responses might be highlighted. A teacher who valued the poetic would give ample time to simply experience, celebrate, and express such ways of relating to things before they get incorporated into some cosy classification or data-base which neutralises their particularity and tranquillises their strangeness, them into instances of generalities. In such by turning classification, analysis, and explanation, it is easy, too, for the quiet beauty and wonder of things familiar and near at hand to be covered over, for in rational ordering it is the overarching idea or concept that sets the pace and the thing itself is in danger of silently vanishing from view. A gross example of this might be when, say, the wing quality of a particular colour becomes transmuted through analysis and explanation into mathematical wavelength.

In many ways, then, the poetic outlook must be caught rather than taught in any didactic sense. Though not simply this, for many of the qualities and attitudes which constitute the poetic, such as whole hearted involvement and sense of wonderment, seem to be exhibited quite naturally by many young children, and therefore it is often a matter of maintaining and enlarging

something that is already present as against introducing something alien. Sensitive provision of opportunity, evocative images, experiences and situations, encouragement, and genuine (ie., open) conversation are the ways in which an appeal can be made to the poetic aspects of a child's nature such that it can consolidate itself and grow. Here, of course, the arts have much to offer - if treated in the right spirit, ie., not as things to be learnt up or evaluated in a rational/critical mode, but as things to be entered into and felt. Free, though not undisciplined, participation in poetry, literature, art, music, drama are vital forms of poetic thought, as is the sense of wonderment in the face of natural phenomena and certain human artifacts previously mentioned. But the term "free" here now refers less to existentialist notions of self-conscious and deliberated choice and decision, as to uninhibited and whole-hearted involvement in which a person is inspired by, and carried along by, their engagement. Their thinking is uninhibited not in the sense that any old response will do, but in the sense that it is "commissioned by Being" - is apt to things themselves - rather than operating through imposed systems. This capacity to enter into, and experience wonder in, the things around us is perhaps the best protection against the insatiable appetite for cheap sensationalism which is its corrupted counterpart.

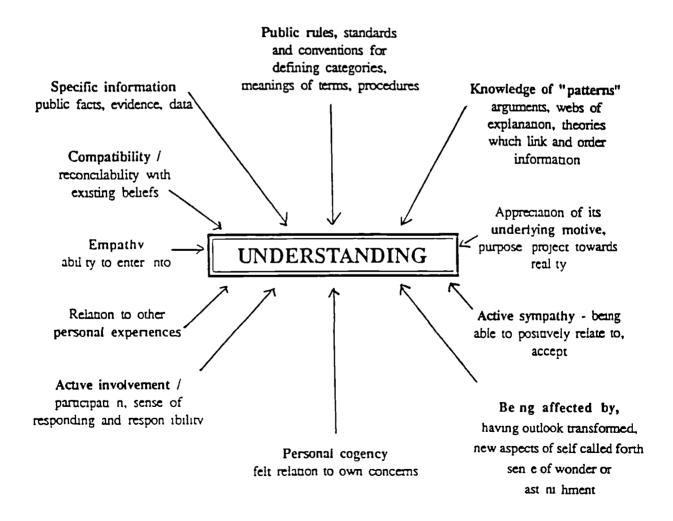
Nonetheless, there remains a sense in which authent c choice remains a constituent part of poetic thinking: it is closely associated with the nature of this rigour of poetic thinking and involves the quality of responsibility inherent in authentic choice being shown towards things themselves so that they may be truly

revealed. Some of this has already been hinted at earlier in this chapter, but I think the issues here are particularly difficult, and since it is not strictly necessary to enter them in order to engage in the t pics covered in the remaining chapters, I will not pursue them here. I have placed some discussion of them in Appendix Two for any reader with sufficient inclination - and stamina - to wish to take them further! 6 At this point, rather than pursuing the arguments in more depth, it would be useful to take stock of the position that has now been reached by drawing together some of the diver e strands that have so far been explored.

A summary: dimensions of understanding

It is clear that thinking has many facets and that in many ways it is best thought of as a generic term embracing significantly different kinds which exhibit or emphasise differing qual ties and characteristics. "Rational-calculative", "authentic", and "poetic have been suggested as examples of such forms which in turn give rise to differing qualities and levels of understanding. If, then, we wished to analyze a child's existing understandi g in order to diagnose its strengths and weaknesses to identify where lacks and problems are arising so as to attempt to make them good - it could be useful to examine it from the point of view of the differing facets which our examination of thinking has brought into view. In Figure 1 below, I have attempted to set out some of the factors that can be constitutive of understanding looking at it from this perspective. Clearly there are strong possibilities of overlap with regard to the qualities shown, and equally, which of them is appropriate will depend on the context for example, that which is to be und rsto d. Tho e components applicable to, say, a proper understanding of a mathematical calculation are likely to differ from those applica le to the understanding of a poem or human relationsh p. It is, perhaps, largely in this way that such a diagram might be of mo t use in helping to select and identify those components which are constitutive of the understanding that we wish to develop so that we can more precisely evaluate what provision we are making to engender them in the experiences we offer to children.

Figure 1. Constituents of Understanding



PART FOUR: THE ROLE OF THE TEACHER IN DEVELOPING CHILDREN'S THINKING

CHAPTER TWELVE

THE PLACE OF STRUCTURE IN DEVELOPING CHILDREN'S THINKING

In recent years there has been much emphasis on the need to thoroughly structure children's work in the junior school. This movement has largely been a reaction to what was perceived as the excesses of child-centred or progressive education where lack of continuity and progression were considered to pervade what children were doing. This in turn led to many attempts to provide m re detailed guide-ines and schemes of work in the various school subjects or a eas of experience" by such bodies as the former School's Council and some Local Education Authorities so as to ensure a more sy ematic apprach to children's learning. And now, of coirse, we have moved into a period where greater national unformity is being sought through the legislation co tained in the Education Reform Act of 1988.

As is well known this legislation sets out a detailed national curriculum in terms of the areas of study to be covered in all state maintained schoos, and the attainment targets to be achieved within each of these areas by the end of the period of compulsory sc ooling. Within this broad framework various key stages have been identified in terms of children's ages with their associated "evels" and detailed "statements of attainment" and "programmes of study". Related to this is a set of procedures for monitoring and

communicating children's progress which centre on the continuous assessment of the teacher and a battery of "standard assessment tasks" which are administered at the end of each key stage. In this way it is intended to "raise standards" in education and to provide a comprehensive record of what each individual child has achieved during his or her progress through the system.

With regard to the primary age-range, which is our main concern here, the outline arrangements amount to the following: Each child will study the three "core subjects" of English, Maths, and Science, and in addition the other "foundation subjects" of Technology (including design), History, Geography, Music, Art, and Physical Education. Further all schools must make provision for religious education, and certain cross-curricular themes such as those relating to Health, Environment, and Citizenship. Each of the core and foundation subjects has its own overall targets of attainment specifying a number of general aspects to be studied, and each target is broken down into five or six levels felt appropriate to span the primary age range. Each of these levels is itself then broken down into a number of more specific statements of attainment. It is anticipated that the average child will achieve the attainments set out in level four by the end of his or her junior schooling, with a range of two levels either side to cover the extremes of the less and the more able.

Clearly we have here, then, a very detailed prescribed curriculum which maps the paths of children's learning across a broad range of subjects independently of any individual child. In the light of previou discussion a clear and pressing question arises: how compatible is this degree of pre specification with the principles that have emerged from our consideration of the development of authentic-rational and poetic thinking? Before answering this question directly, I would like to locate it in a broader framework of considerations.

Five sources of structure for children's learning.

There are a large number of considerations which intimately affect the way children's learning is structured in the primary school. Many are of a highly practical nature to do with, for example, the availability of staff and equipment, the timetabling of certain key rooms such as the hall or AVA room, the particular published schemes that are currently on hand, etc., etc. But underlying such practical issues there are a number of more fundamental points of reference which decisions concerning the structuring of children's learning draw upon. I believe that it is possible to identify five such underlying structuring principles that in varying degree and combination commonly serve this role, and which it would therefore be useful to examine from the perspectives developed in this book.

Firstly, there is what one might call the individual teacher's viewpoint. By this I refer to the way a particular teacher's conception of what should be taught might influence the content, style and direction of the children's work. It will reflect the personal associations that the teacher makes between different items of learning, her values, her enthusiasms, her felt

strengths. This point of reference may sometimes determine only the degree of emphasis placed on different aspects of what is taught or how it is taught, but may on occasion determine m ch of the framework for learning, as say in a project largely devi ed by the teacher. The point is that structure is provided by the teacher's personal perception of what is valuable, needed, possible, enjoyable, etc.

Now in evaluating this source of structure we might be tempted to say simply that it has the advantage of maximising teacher commitment but the disadvantage of considerable degree of idiosyncrasy. Yet while there must be some truth in this, it is not quite this straightforward. Let us think back to some of the considerations raised in Parts Two and Three. Oakeshott's view of education, for example, strongly suggests a sense in which the teacher should be regarded as to some significant degree an individual embodiment of the culture and traditions into which we may wish to introduce children. Through her individuality she exhibits a particular way in which they have become integrated into a human l fe and therefore to the extent that she is authentic she is capable of displaying to children what an honest engagement with them might mean how they make a difference to what we see and feel Now this can become apparent not only in the role model she provides in her day to day interaction with her class - important though this is - but also in her on-going selection of content. Through this latter, by deciding certain priorities and giving certain emphases, she can bring an area of study into relief - a relief which expresses the life f an area through being imbued with her life - her sense of what is

important, problematic, analogous, interesting, fascinating or a source of wonderment It seems to me that this potentially important source of integration and vitality in what we present to children should not be lightly overridden.

The second principle, or point of reference, for structuring children's work is the structure of knowledge itself. The idea here is that if we examine the realm of public knowledge available to us today we will see that it has its own logical structure of facts, concepts, and procedures, which children need acquire if they are to gain systematic and disciplined knowledge and understanding. The rationalist view of knowledge discussed in Part Two (especially that of Hirst) would be a paradigm example of such an approach, and it is reflected in many published schemes of work, particularly in the areas of maths and science where children may follow a fairly prescribed path for learning step by step, page by page, card by card. etc. (Though it is important to recall here that such linearity of learning was radically called into question by the more sophisticated forms of rational sm we considered in Part Two.) This princ ple ensures that a certain conte t is covered in a systematic way and has the further advantage of focusing on what we may call the "depth structure' of knowledge - the underlying concepts and procedures that one needs to acquire in order to participate in an area of knowledge rather than be a passive receiver of informati n only. But as such it makes no direct reference to what is seen as interesting or relevant by the learner. While it certainly allows for matching between child and task, this is seen in terms of ability nly - and then only in narrowly conceived terms which takes little heed of the extent to which the child's own motivation and quality of engagement can actually determine perceived ability. Further, as was pointed out in Chapter Four, there is the danger of such knowledge losing its organic feel if it is subject to a detailed analytic dissection into compo ents, and that poetic understanding - because intrinsically it is not susceptible to this kind of analysis - will be heavily distorted or gnored altogether.

The third approach is what one might call the skillscentred principle an approach which has become closely associated with so-called "process" views of the curricu um. Here the idea is that there are a number of important skills that children need to learn - relatively independently of any particular knowledge content - which will enable them to operate effectively in a wide range of situations and to find out, evaluate, and generate knowledge for themselves. For this reason their acquisition has sometimes been denoted by the epithet "learning how to learn". The "communication skills" of reading and writing would be a case in point, but also a wide range of so-called "thinking skills" such as hypothesizing, interpreting, evaluating etc, "observation skills" in art and science, "social skills required to get on with people, down to very specific skills such as being able to use an index or a pair of scissors. This emphasis n knowhow as against know-that often brings an overtly instrumental, and sometimes vocational element to the structuring of children's learning. Learning is not done for its own sake - ie. ut of some sense of its intrinsic worth - but as a means to s me further Alone, this principle runs the danger of lead ng to skills being learnt in a relatively mechanical way through lacking a

ufficient context of understanding to guide application. Further, as with the knowledge-centred principle, there is the danger f them remaining unrelated to the concerns of an individual child so that their value is not felt and the possession of them is n t in fact empowering.

Now a feature shared by each of the sources of structure so far described is that they are essentially closed: they attempt to prescribe in advance what is to be learnt. For this reason they lend themselves well to a way of structuring learning which sets out clearly defined objectives which give both a strong sense of direction, and reference points against which work can be monitored and progress measured. This in turn can give a sense of security in knowing that "the ground is being covered" and facilitates clear organisation of teaching and resources. Learning structured in this way gives the impression of having been well thought through and efficiently administered, and clearly this impression has appeared strongly to the authors of the Education Reform Act. The remaining two principles are potentially far more open-ended in character.

The first of these is where the investigation of some real problem or issue becomes the point of reference for what is learnt. Such investigations may be into some aspect of the ocal environment (eg., 1 sues concerning where to place a new by-pass, the design of some local amenity, etc.), or drawn from life in ome broader respect (eg. the plight of the Third World, endangered species, pollution), or then again, much narrower in focus - such as a specific maths investigation. The point is that when this

principle as umes dominance, the structure of children's work is provided by the enquiry itself - content and direction develop according to wherever the enquiry happens to lead.

The advantage of this approach is held to be that it endows the work with a realism and relevance to normal life and better reflects the character of human endeavour. On the other hand, depending on the particular issues chosen for investigation, it may not cover the ground in as thorough and systematic a way as some of the other principles of structure previously mentioned. Also, it is important to notice that while the problem-centred approach is clearly open-ended in a significant sense, it is not necessarily so from the stand-point of the pupil. Certainly, precise learning outcomes are not pre-specified - emerging rather as the enquiry develops - but it remains the case that the problem itself could be, and often is, initiated by the teacher, and its development determined by his or her view of what needs to be done. This being so, teacher-, knowledge-, skills-, and problemcentred approaches, while providing structure in a fairly clear sense and thus providing a fairly firm basis for planning for coherence and continuity, of course do this only from within their own perspective. Such perspectives - which represent points of reference external to the learner - take little account of the possibility that one person's coherence can be another person's confusion, ie. that different individuals have different concerns and learning styles, and make sense f things in different ways.1

This consideration brings me t the last of the principles I am going to consider as a source of structure in the work of the

child: namely that of the consciousness of the child his or herself. By this I refer to that subjective structure of beliefs, understandings and concerns which constitute the child's own outlook in the world, and in terms of which he or she has ultimately to make sense of what is learnt if it is to gain the kind of subjective weight discussed in previous chapters. Clearly this principle will always be operative to some degree whatever other sources of structure we seek to impose on the child's work. The question it poses is the extent to which we seek to celebrate it, or ignore or repress it - and the extent that it will therefore find positive or negative expression in the child's response to the work.

From the point of view of developing thinking and understanding it is perhaps open to two central objections. The first is that it nterpreted in the way that it has been by some proponents of the "child-centred" or "progressive" tradition in education it could lead to work of a very superficial nature. Our previous discussions on the nature and value of self expression and authenticity have made it clear that not any old whim or transient interest should constitute the touchstone of learning. Nor even, straightforwardly, the child's everyday way of being. We may recall that it was argued that as far as possible we should be actively seeking to identify, explore and refine those deeper concerns which a child may have, and which in time give an increasing sense of personal engagement and responsibility in learning.

Now in the light of these important qualificati ns might it not be reasonable to suggest that it would be better to simply

abandon the term 'child centred" in order to avoid inviting unwanted associations with the laissez faire in education? I'm not my elf convinced that this w uld be best. To begin with the great thinkers in the child centred tradition such as Ro seau and Dewey have never advocaed a totally laissez faire approach. Practices of this kind - to the extent that they have ever achieved a reality beyond the caricatured portrayals of those ho t'le to the tradition - have largely ari en on the basis of misunderstandings of its underlying philosophy. To abandon the term on this basis, then, would be to provide yet another example of not allowing issues of truth to pervert the course of dogma! But also, no really satisfactory alternative labels come to mind. I'm not sure that terms such as, say, "learner-centred" or "pupil-centred' either sufficiently escape these associations, nor, very importantly, do they do justice to the way our discussion of authent c learning emphasised its essential relationship to life in a broader sense than that picked out by thinking of someone as a "learner" or "pupil". I intend, then, to stick with the term "child-centred" on the understanding that it is to be interpreted in the qualified way I have tried to develop.

The second objection is that the child-centred principle, even thus interpreted, could clearly lead to an idiosyncratic and narrow path of learning when viewed from the stand point of the public forms of knowledge. But the arguments concerning its strengths and weaknesses in this regard have already been exported in our discussion of the issue of breadth versus depth in children's learning and so I will not rehearse them again here. How the child centred principle might actually be brought to bear

explicitly in the planning of children's work is a matter that I will return to presently.

For the moment, it is important to be clear on another p nt. in no way is it being suggested that in practice the five principes I have sketched are mutually exclusive. The structure of a less n, a scheme of work, a teaching or learning episode, may be influenced by varying combinations of these principles: it is often more a matter of relative emphasis than exclusivity. But to grant this does not in the least undermine the claim that such distinctions can be made and that it is important to make them. An awareness of them can alert us to important questi ns concerning priorities to be given between them in differing circumstances and ways in which they interrelate in their contribution to developing children's thinking. The chief funct on of these principles, then, is to serve as interrelated points of reference in the preparation for, and analysis of, how we deve op thinking and understanding. That they are interrelated is ea ly demonstrated in the way that, say, the defining and investigat ng of problems draws on knowledge a d skills, and insofar as he teacher exercises any control over the conditions in learning takes place, and responds to on going developments, his or her own perception of what is needed must be operative, etc

However, this is not to deny that also there can be significant tensions between them wich can only be resolved by coming to some decision as to which are the more central to the quality of learning we should be trying to achieve in a particular context. For example, with regard to a particular piece of learning,

do the qualities of understanding offered by the problem centred principle justify the extra outlay of time? Ju t how great a context of previous knowledge and personal under tanding is needed for such and such skill to be effectively taught? Views on such issues, at the very general level of what counts as truly educational learning, have been rehearsed in Parts Two and Three of this work. I will now explore some more detailed considerations by turning to an examination of the National Curriculum.

Structure and the National Curriculum

While there is a certain amount of variation from one foundation subject to another, it is I think true to say that in general the attainment targets and statements of attainment draw heavily on the knowledge- and skills-centred principles of structure, whereas the programmes of study show more recognition of problem-solving and possibly child-centred principles. In one sense one might think that it could hardly be any other way. How can one have specific statements of attainment for genuinely open ended forms of structure? Is it not quite correct to see a range of prescribed outcomes in terms of knowledge and skills setting the objectives of education while considerations concerning problem- and child centred principles bear more appr prately on issues of met odology? I wish to suggest that such a view assumes too neat a distinct on between ends and means - between the desired outcomes of education and the procedures of education. A consideration f this issue will lead us to address three related questions:

- 1) What is the relationship between mean and ends in the development of children's thinking and u derstanding?
- 2) Is it possible to give coherent structure and sense of direction to this development without the detailed prespecification of objectives of the kind set ut in the National Curriculum?
- 3) Given that all teachers in state-mainta ned schools have to work within the legal requirements of the National Curriculum legislation, to what extent is there scope for them to structure children's work in the open-ended way which the problem- and child-centred principles advocate?

The main point that I would like to make with regard to the issue of means and ends is that unlike, say, the production of sausages where the nature of the processing is not carried forward as an integral part of the end priduct, where the development of consciousness is concerned, it certainly is. Indeed, the 'outcomes' of mental development are really largely summaries of the paths taken to achieve them. That is to say that in the context of developing thinking and understanding, the means are often constitutive of the ends. This can be true in two ways: logically and experientially.

It is true logically in the sense that acquiring and developing certain aptitudes and attitudes is only achieved by exercising them. Imagination, or criticalness of mind can be taught

in no other way than by exhibiting and practising these powers: there is nothing separate that ne can do in dev loping them which is n t an integral part of what it is have them. Thus the quality f thinking and understanding in such cases is very much an expression of the experiences through which they were acquired

The means can be experientially constitutive of the ends in that the exercise of thinking often requires that we bring into play those experiences through which previous understanding was formed. It is a drawing upon these experiences, not some discrete product that exists quite independently of them s in the case of a mechanical skill such as the use of scissors which may make no reference to the contexts in which it was riginally learnt. (And even here, skilful cutting may on occasion involve bringing to mind past experiences of cutting.) Similarly the affective aspects of thinking and understanding, whose central importance I have previously attempted to bring out in Part Three, feed off the experiences from which they sprang. As well as particular attitudes, ones general stance towards things, are very much a carrying forward of the past into the present and the future.

This means, then, that the noti n that we should go about structuring children's learning by first y identifying in detail what the end-products are to be and t en devise the means invites too mechanical and closed a view as to h w thinking devel ps, and an underestimation of the intrinsic worth of the procedures (means) themselves. That is to say, it as umes that defining ends is both

possible and desirable with regard to how people should think, and discounts unquestioningly the possible value of allowing the means - ie., the procedures and intrinsic direction of on-going experiences - to determine the ends.

Structure without stricture?

The issue of structuring work in the absence of specific prespecified objectives is one which now has a considerable history. It was perhaps first brought into clear focus by the thinking of Lawrence Stenhouse in relation to the work of the Humanities Curriculum Project (See Stenhouse, L. 1971.) The problem that he addressed there was that of how schools should controversial issues, given that pupils were going to come up against them and have to make judgments about them in the world outside school. Stenhouse's point was that in the case of genuinely controversial issues such as say, abortion, voluntary euthanasia, war, it would be improper for a school to attempt to specify the particular views children should hold, yet clearly they needed to be prepared to face such issues as part of their broader education. In this situation Stenhouse argued that the teacher's role should be to organise discussion which was genuinely openended but which reflected certain basic democratic values in terms of its procedures. That is to say, the development of student's thinking in these areas wuld be structured in terms of such principles as hearing both sides of the story, being made familiar with relevant evidence, listening to and examining each others attempts to articulate their opinions and rationally justify

t em It was held that such procedural principles w uld give a certain structure and quality to the student's experience without prejudicing the outcome in terms of the final beliefs that they came to hold as a result of that experience.²

At the kernel of this approach, then, is the n tion that learning can be structured without reference to objectives conceived in terms of precise outcomes. Of course, the se ection of procedural principles could not be made without reference to cert in general aims in this case the understanding of the issue and the development of independent thinking - but such aims are themselves an expression of the ideal of openness of thought and do not pre-specify a particular content in terms of know edge and beliefs to be acquired. Rather they suggest what is to be built into the quality of the experience ie., the kinds of opportunities the experience will provide, leaving it open as to how individuals will resp nd, and exactly what they will take away from it.

How, then might this approach be applied to the primary school as a way of structuring children's learning on a broader front, and so as to express the problem- and child-centred principles? Below I have listed some questions that a teacher concerned to bring these principles to bear in the way she structures learning might ask herself as she comes to plan the experiences she intends to provide for her class:

1. In what ways will she allow encourage individual pupils to init ate their learning activities (e.g. through expressi n of an interest or concern)?

- 2. When, and to what extent, will she allow/encourage pupis to negotiate their learning activities with her?
- 3. When and to what extent will he at least consult pupils before deciding what she will ask them to do (e.g. by taking them into her confidence and explaining the underlying rationale and relevance to them of what she intends and seeking their opinions)? And to what extent will she consult them after the activity to seek their opinions regarding its success?
- 4. To what extent will she allow/encourage pupils to choose how they will follow up something that he has initiated?
- 5. To what extent is she prepared t allow pupils to experiment and genuinely experience the consequences of their own deci ions (e.g. even when they appear to be aking 'mistakes')?
- 6. In what ways will she provide pup is with challenges which arise out of, or are relevant to, their own concerns and which will require the use of their wn initiative?
- 7. To what extent wil she genuine y seek pupils' own feelings and opinions and take up and bu d upon their ideas, e.g. in a discussion situation?
- 8. To what extent, and under what conditions, might she be prepared to enter "sensitive areas", for example, to explore with children personal matters to do w h, say, concerns they may

have about friend hip or family relationships, m ral and controversial social i sues, anxieties about health, illness, death?

9. To what extent will she encourage pupils to discuss and evaluate their own progress in terms that they feel are appropriate?

Some of these questions can further be analyzed in terms of pupil choice concerning:

- (a) resources and materials they will use;
- (b) organisation of time;
- (c) organisation of place;
- (d) who they will work with, if anyone;
- (e) which skills to employ.

It should be clear from the above list - which is not, of course, by any means exhaustive - that the ways in which the child-centred principle can be brought to bear in practice are many and various, and operate at different levels, thus giving wide scope for the teacher to decide their applicability in differing circumstances. It is likely that the teacher, given that she certainly cannot assume that children a) are naturally authentic, b) will want to be authentic, c) will be encouraged to be authentic by other agencies, w uld have to be prepared to work at some of these aspects with considerable perseverence in at least some cases. And she may well need to pay just as much attent on to the stage an individual child is at with regard to pro iding situations for making choices, taking responsibility and engaging in deeper

personal reflection, as she would with regard to providing work at the appropriate level in, say, maths. But each of the questions on the list focuses on the quality of experience provided for pupils rather than pre-specified learning outcomes, and taken in conjunction with the teachers assessment of what her children can cope with in terms of freedom, reflection and responsibility, are capable of providing a clear source of structure for their work.

The underlying claim (as I hope has become clear from previous discussion) is not that the other principles of structure should be ignored - indeed, they are essential sources of content for thinking and understanding, contributing as they do a vast realm of knowledge and experience beyond that which the child currently possesses - but that their educational potential can only be realised by bringing what they offer into the ambit of the child's own thought so that he or she can make what they offer more genuinely his or her own Previous argument suggests that this requires that the child's own deeper concerns play a significant part in structuring learning, and the supposition that we can somehow by pass this in the interests f "efficiency" and breadth of coverage - and still avoid superficial ty is to engage in a convenient but dangerous myth. The truth is that if we wish develop children's thinking and understanding we must structure their work in accordance with the features which are immanent in the activities of thinking and coming to understand themselves, rather than some separated and predefined end product. Our stance must be to think of opportunities given rather than precise outcomes to be achieved. (Which is not, of course, to deny that we may want to check what has been achieved - insofar as this is possible. This issue is taken up in the next chapter.)

This approach to the of structuring learning which focuses on the quality of experience offered is very much in keeping with what was said concerning the application for the teacher of the constituents of understanding summarized at the end of the previous chapter. In this broader context it would provoke which centred around complementary questions concerning the extent to which children are given opportunities to, say, empathize, be affected by, appreciate underlying motives, apply public classificatory rules, patterns and webs of argument etc. It would place at the centre of our planning the question: In which contexts should we be attempting to be building such qualities into children's learning experiences, and how can this be married with the intrinsically more closed principles of structure? Somehow in our planning, the latter have to be restored to the position of being potentially enriching of authentic understanding, ie., as desirable possibilities, rather than as a potentially deadening straitjacket of prescribed outcomes.

Openness and the National Curriculum

We must now consider the last of our three questions: to what degree is it possible to structure learning in this way in the context f the National Curriculum? Clearly this will vary to some degree across foundation subject areas. As one might expect, there would seem to be generally more scope in areas such as English

than in Mathematics and Science. In a moment I will consider this in more detail, but first it is important to reassert a general point made in Part One concerning the relationship of teachers to the they have an interpretive National Curriculum: formative role to play. Strictly speaking the National Curriculum is an abstract set of formal legal requirements which have to be interpreted in a wide range of differing practical situations to the benefit of the children concerned. helpfulness of the framework provided by the National Curriculum is not a given, but is yet to be discovered developed. It is therefore a framework which will need to evolve in the light of professional response. If quality of development in children's thinking and understanding is to be enhanced, teachers will need to continue to exercise a significant degree of autonomy in terms of how they implement it. In particular they will need to mediate it in a way that mit gates the possible negative effects of the extensive and detailed c mpulsory elements on the quality of children's understanding, as I have previously tried to explain and defend it. Interestingly, as we shall see, certain aspects of the National Curriculum - particularly elements in the various Programmes of Study - seem to be very much in harmony with this, but there can be little doubt that the strong pressures in the opposite direction will require teachers to be very active in seeking opportunities to organise in appropriate experiences.

By way of example, let us now consider some of the statements of attainment in Science to see what scope there is for structuring children's learning in the way we have been

discussing. One thing that bec mes rapidly clear is that far from this possibility being prohibited it is to some degree required. For example, consider the f llowing statements of attainment taken from levels 1-5 of Attainment target 1: Exploration of scie ce (DES 1989a):

- observe familiar materals and events in their mmediate environment, at first hand, using their senses.
- describe and commun cate their observations, ideally by talking in groups or by o her means, within their class.
- ask questions and suggest ideas of the 'how', 'why', and 'what will happen if' variety,
- interpret findings by a sociating one factor with another.
- record findings in charts, drawings and othe appropriate forms.
- formulate hypotheses.
- identify, and describe simple variables that change over time.
- distinguish between a 'fair' and an 'unfair' test.
- raise questions in a form that can be investigated
- construct 'fair tests'.

Such a list could clearly be construed as a detailed set of procedural principles, and reference to the acco panying Programme of study which suggests that such activities should "inv lve children and their teachers in promoting ideas and seeking solutions" and 'promo e at first hand the explication of objects and events', only encourages such an interpretation.

It is true, of course, that other attainment targets are more content specific, so we find under "Attainment target 2: The variety of life", such objectives as 'know that plants and an mals need certain conditions to sustain life", and under "Attainment target 6: Types and uses of materials" .. "be able to make comparisons between materials on the basis of simple properties, strength, hardness, flexibility and so ubility" and "be able to relate knowledge of these properties to the everyday use of mater als". But even here, there seems to be a considerable degree of openness with regard to the deta ed experiences that chi dren may have which could develop such understandings and abil ties. The main point to be taken from this, I think, is that in theory many (though maybe not all) statements of attainment have in some degree the potential to be achieved in ways consi tent with the approach to structuring children's learning which has been advocated in this chapter. There is some space for this, and even in the area of Mathematics (DES 1989b) we find promising statements as "Pupils sh uld use number, algebra and measures in practical tasks, in real-life situations, and to invest gate within mathematics itsel ' - though the statemen attainment tend to be far more con ent specific and hierarchi a ly ordered than in Science.

In the light of this assessment of the situation, it seems to me that we are left with two crucial questions with regard to the future of the child centred principle of structure within the National Curriculum. The first is whether teachers be ever sufficiently in its value to seriou y pursue it, given that the various elements of negotiation with children which it entails will,

on the face f it, place extra demands upon them. The second question is whether they will receive the necessary help in terms of encouragement, time, and resources to support them in the attempt.

These questions are particularly pressing in a situation where teachers are having to cope with rapid change, and the sheer range of demands which comprise the nine foundation subjects with their myriad detailed statements of attainment, and additional cross curricular themes. It is not so much that any single element within the National Curriculum framework is inherently hostile to the child-centred principle - though there undoubtedly is a tension over the issue of pre-specification as such - but that the cumulative requirements of teaching, monitoring, and reporting such an extensive and detailed set of objectives will pre-occupy teachers to such an extent that there is a real danger of the concerns of children simply disappearing from view. But perhaps of equal significance, the approach of teachers to structuring children's learning in this context is likely to be strongly influenced by the forms of assessment in terms of which their own and their children's performance is to be judged. To this complex issue, I will now turn.

CHAPTER THIRTEEN ASSESSING CHILDREN'S THINKING AND UNDERSTANDING

Some basic considerations

In Chapter Two the point was made that the very notions of education and 'development' contain within them the idea of a person's achieving some new, higher, standard in their thinking and understanding. That is to say, teaching in this context is concerned with the bringing about of some kind f desirable change in children. If this is so, it would seem to follow that anyone seriously involved in such teaching must be committed to the idea of assessment in some form or other, for how else could they judge whether this desirable change was taking place, and therefore the extent to which their teaching was work ng? This is not of course to deny that some important educational changes take place that do not necessarily manifest themselves in an overt form directly observable by the teacher. A chi d's deeper understanding of an issue, a piece of literature or mus c, may find no expression that can be identified and used as a measure by an Here assessment must be of the quality of the observer. procedures, materials, interaction, that are provided t facilitate change rather than the change itself. But one way or another assessment seems to be absolutely necessary if we are to discover whether our teaching is doing, or is likely to be doing, any good, and what improvements should be sught. This being o, the main question is not whether to assess - since to seriously engage in the activity of teaching at all seems to require it - ut how to

assess. What form(s) should assessment take in particular circumstances?

The aspect of assessment which focuses on the educational potential of a situation through an analysis of the quality of experience being provided for a child has in fact been discussed in the previous chapter where the possibilities of structuring children's thinking through principles of procedure were explored. Such principles, along with others relating to the nature materials being used and the resources provided, would provide a set of criteria for analyzing and evaluating such educational potential - As would the components of understanding offered at the end of Chapter Eleven. This general perspective will be taken a little further in the final chapter on teaching as poetry. In the present d scussion, I will focus on the issue of attempting to assess what children have learnt as against what they may have had the opportunity to learn. That is to say I will be addressing the following fundamental question for educational assessment: What conditions provide the maximum opportunity for overt responses which are a true expression of a child's thinking and understanding?

Clearly how one sets about answering this question will depend upon ones underlying philos phy of education - what one values and what precisely one is trying to achieve as a teacher. And it will be against this backcloth that three more precise questions present themselves with regard to selecting a means of assessme t in any particular context.

- 1) Precisely what is it that you wish to assess?
 - what is its nature?
 - of what is it comprised?
- 2) Precisely why do you wish to assess it?
 - what advantages do you hope to gain?
 - to what purpose will the assessment be put?
 - what will hang on it?
- 3) What are the possible side-effects intended and otherwise?
 - are there any dangers/reservations about making this assessment, and in this form, in terms of possible effects on other aspects of what one values educationally? For example how will it affect children's motivation, attitudes, and the relative status of those things that can be/are assessed as against those things that can't be or are not?

In sum, the appropriate form of an assessment must depend upon consideration of the nature of the thing to be assessed, your purpose in doing so, and its possible broader consequences. In the light of these very basic points about assessment in general, I will now turn to the more specific issue of assessing the development of children's thinking in the climate of expectations created by the National Curriculum.

Assessing authentic-rational and poetic thinking

I have tried in this thesis to describe two kinds of thinking, and a third dimension of thinking which is in interplay with them. Since these accounts con titute an answer to the first of the three basic questions listed above, it may be helpful at this point to summarise the position we have reached. Basically, I have tried to make a distinction between rational-calculative thinking and poetic thinking, each with its own project with regard to reality: the former seeks to master reality by interpreting it through imposing a system of defining categories which standardise things and thus make them manageable, the latter seeks to simply reveal reality through a direct relationship with things themselves which is receptive to their uniqueness. The one gains organisational and explanatory power by levelling off the particular and seeing it as an instance of something more general, as, say, when we see a person as being of a certain 'personality type' or exemplifying a certain cultural background. The other gains depth of felt response by involving itself in the here and now and thus apprehends universals concerning eg., the human situation, that are immanent in the present as, say, when we are moved by a particular individual's courage or compassion which deepens our understanding of what these things can mean.

The third dimension comes into play as fo ows. Insofar as rational calculative thinking emphasises the impersonal a pects of thinking in the form of public conventions and standards, from the point of view of the individual it holds within it the danger of overlooking his or her own understanding of the ideas and

pr cedures he or she may be employing - their subjective weight. Thus there is a need to encourage what I have termed authenticity of th ught, wherein individuals make what they have learnt their own by coming to feel its value in the context f the rown real concerns, ie, concerns, for the expression of which, they accept personal responsibility. In this way the use of rational thinking can become self-expressive, and when the subjective and objective ements are so combined we have what I have dubbed authentic-rational thinking

Poetic thinking, on the other hand, as I have characterised t, necessarily involves elf-expression within itself, for at its heart lies a relationship of direct personal response of the ndividual to the thing being thought. The individual is attuned to what things themselves nvoke in him with no further end in view, though it is important to note that this is not to deny that such attunement may well affect his understanding of, and attitude t wards, many ther things. For example, ones m re poetic apprehension of a situation may condition ones stance towards rational interpret tions and explanations of it, and affect the way one weighs a ternative reasons and evaluations in relation to it, as, say, when the sublime subtlety of a wild flower in the grass may j t a predisposition to see life as merely the mechanical product of bli d evolutionary f rees.

Having thus sh rpened our focus in terms of the broad modes of thinking we are trying to assess, let us firstly look in m re detail at the case of authentic-rational thinking. Examination of this iew of what it is to think and understand has

made it clear th t what we should be trying to assess is the extent to which chi dren have acquired publicly shared con epts and procedures and pply them 'n their experience. And in providing this focus, it dr ws our attention to two uestions central to the idea of assess ng the development of children's thinking.

- 1) What c unts as having learnt a concept?
- 2) Is there any necessary order in which concepts have to be learnt?

There is much that could be said on both of these issues, but previous discussion has drawn attention to the following important points. Firstly, the rationalist notion of webs of concepts emphas ses that concepts do not exist in isolation, and that they derive their meaning from the human activity in which they are embedded, and which they articulate. Thus, the answer to the first question is that we must think less in terms of the learning of individual concepts and more in terms of initiation into conceptual networks and the practices in which they are embedded. From this it would seem to follow that the degree of success here can only be displayed in how someone organises experence over a relatively broad front and in a meaningful context.

Now if this is so, and we recall the point underlined by the notion of authenticity concerning the need f r a psychological rather than a logical point of reference for the sequencing of learning, a second important consideration arises. It may well turn

out to be the case that any attempt to tightly pre-specify the course of learning for an individual will be counter-productive. We saw that "straight' rationalism tended to focus on the public dimension of meaning - a point of reference which is essentially external to the individual. But if we allow credence to the view that understanding has a personal dimension that is a function of the particular individual's present concerns and conception of a situation, then effective learning will require that its precise direction will be significantly shaped by the learner. Thus the route that an individual will follow cannot be prescribed, but will result from an on-going process of negotiation within a situation. If this is the case, there are some important consequences for the assessment of authentic-rational thinking.

Firstly, assessment will need to be retrospective in character. While it may be possible to pre-specify the area to be assessed in general terms, eg., by indicating some of the central concepts and procedures which characteri e it, selectin of precise elements and levels can only be made with hindsight. That is to say, an appropriate assessment must take as its point of reference an evaluation of the potential of the experience that the children actually had. This is not, of course, to say that it should simply replicate such experience - far from it. We should recall here the point made by Wittgenstein (Chapter Five) that understanding is only demonstrated when a person shows that they can apply what they have learnt in situations which are new to them. The point is that it is only in the light of such a looking back that we can establish fitting criteria for testing what has been learnt, for the detailed course of the child's learning cannot be predicted if he or

she is active in shaping it. Thus while assessment may rightly take place within the context of a broad framework of general att inment targets, it must be designed to reflect the real learning experience and not prescribe it.

Secondly, it would seem to follow that assessment should aim to take a form in which children perform in situations which are as "natural" as possible. That is to say, it should have as its focus episodes which have a psychological continuity with the children's own concerns and conceptions. Quality of learning is most trenchantly measured according to the degree of novelty of the situation in which it is having to be applied, and the opportunities it offers for application of the web of concepts (rather than one member) in a context that has intrinsic meaning to the learner. This last consideration is perhaps particularly endangered when heavy emphasis is placed on attempting to standardise assessments.

Thirdly, as Christian Schiller (1946) once claimed, assessment should be of children "in the round". The ability to give a formal statement of the criteria for a concept, to match terms with definitions, and to recognize instances in a prescribed situation, says little concerning the extent to which children have made such an aspect of understanding their wn. To judge this authentic quality, we need to take the trouble to see how it has bee me incorporated into their normal way of going about things - how it affects their outlook and their lives. To what extent d they employ out of their own volition concepts and procedures they have learnt? That is to say, we need to observe what

difference their learning makes to them as individuals. As we have noted, developing children's thinking is not a purely continuous matter, it is centrally concerned with attitudes and dispositions, and assessment which does not reflect this is of very limited value, for it tells us nothing about the meaning of what has been learnt for the learner. These considerations, taken together, seem to argue powerfully for forms of assessment which are either illuminative descriptions of the child's developing way of identifying and dealing with problems, or more standardised test material which has become an integrated part of the child's on-going work.

Let us now consider some of the implications for the assessment of the deve opment of children's thinking, which consideration of the poetic raises. Clearly, it would seem to reassert the great imp rtance of aspects of thought which are not readily developed n a tightly structured way, and which are notoriously diffic lt to ssess objectively. Poetic thinking demands a kind of personal invo vement which cannot be standardised and pre specified because, in essence, it consists of forms of unique sub ective response which require openness and freedom. And it follows from this that it requires a teaching relationship which is itself poetic in character, such that what an individual brings to the situation is respect d in its own right and is developed in ways that maintain its inner integrity But as I have previouly been at pains to empha ise this is far from saying that whate er response a child may have is simply to be indulged (and theref re likely ossified and stultified): it has to be challenged and deepened, but in ways which are an empathetic response to t at individual, nd which we therefore can ot map out in advance. It is not that there are no standards in this area, but rather that they are of a qualitatively different kind to those employed in rational calculative thinking.

Let me illustrate this, and its consequences for assessment, by using a familiar example. Consider the development of, say, a child's creative writing. Clearly this depends upon the acquisition of many basic social conventions to do with the shared meanings of words, grammar, symbolism etc. whose use can be assessed to some extent "objectively". But also, we feel able to make judgments concerning the quality of such a piece of writing which go beyond the correct application of conventions, yet are not thereby purely arbitrary. Here, such standards as we employ are themselves subservient to something more fundamental, namely the inner integrity of the piece - the extent that it reveals the felt reality of its subject. That is to say conventions are employed, and standards are applied, in the service of expressing and invoking a fresh and direct response to things themselves. It is this relationship of open awareness which is the final point of reference, the ultimate standard. And this itself is infinite in terms of its variation, and cannot be standardised. Thus truly creative wrt ng is always a manifestat on of a vital and receptive involvement with a situation or thing, and it is for this reason that a piece which displayed perfect grammar and syntax, richness and breadth of vocabulary, could come across as hackneyed and somehow second hand when compared with another piece which consisted of a few simple lines.

And what is true here, is, I suggest, as true in analogous ways for quality of thinking in many other areas of the arts and humanities, and also, importantly, in the area of interpersonal relati nships. Ultimate y, there are no recipes, no prescripti ns, there is no "method", and therefore no pre-specifiable outcomes in terms of which the quaity of poetic thinking can be mechanically measured. On the contrary, those who would assess such thinking must themselves b e prepared to enter into experience - the relationship - in which it occurred. To assess the development of children's p etic thinking, then, must involve an empathetic relationship with the individual child his or herself, for what we are attempting to evaluate is genuineness of self-expression, where this latter term denotes not a self-centred indulgence, but a demanding and creative relationship with things - a receptive, and therefore genuinely personal response.

In having our attention drawn to the empathetic and receptive role of the teacher in developing a child's poetic th nking - and therefore to the openness and unpredictability of a learning episode - it can be seen that any "test' of such thinking needs to be modifiable by the participants during the progress of the test. Only through a significant degree of such interaction with the form of assessment can the pupils own under tanding come into play in such a way as to allow on-going psychological continuity and the demonstration of her capacity for creative response to the situation (which itself becomes modified in line with the pupil's evolving conception of it).

Similarly, it will be highly d sirable f r the teacher, thr ugh oral and other contributions, to be able to elicit fuller and deeper responses from p pils and to be able to modify the test so as to a ow it to build upon these and t us reflect more accurately the quality of understanding of the children. This facility, then, is not merely to safeguard against inaccuracy of assessment ariling from ambiguities or vagueness in the description of a situation (w ch, in a test where some depth and creativity of response is sought, can never be totally circumvented in abstraction from the particular interpretation brought by the participants), it is required to enable fullness of response which may indicate the extent to which the pupil has made what she knows her own, and how it has affected her outlook to a situation.

But now, if, because of its open and highly subjective nature, it is clear that there cannot be a narrow and tightly pre-specified set of standards to refer to with regard to poetic thinking, the question arises as to how we are to assess children's progress here at all. What seems to be needed is an understanding of a wide range of loose textured potential cr teria which can be called into play as appropriate to evaluate a particular response - to be interpreted in ways that reflect the inner integrity of that response Such potential criteria would include degree of vita ty, perceptiveness, sensitivity, freshness of expression, aptness, engagem nt, empathy with subject, atmosphere, integrity, depth of meaning, revealment. truth. self-expressiveness, ima inat veness, effectiveness of im gery and symbolism, etc. previous y mentioned, such evaluation will largely rest n an intuitive entering into the work and would need to be

accompanied by the pupil's own vew of his or her achievement. In the same way as one can often only convey the quality of a poem or novel by quoting extracts because its quality lies precisely in its particular and unique expression which is therefore not quant fiable in any straightforward sense of that term, so it would eem that the progress in the development of children's p etic thinking will be best conveyed by the collection of selected examples of children's responses together with appropriate scene-setting and evaluative comments, which could then be compared over a period of time. Judgements might then be made which inv lve some degree of re-entry into the situation which provoked the pupil's response.

Resume: criteria of assessment

Let me n w summarise the view of assessment we have reached. In the light of the distinctions I have made, I have suggested a number of features which forms of assessment which would genuinely reflect the development of children's thinking would possess. From a consideration of authentic rational thinking arose the importance of assessments which assess understanding of webs of concepts, are retrospective in orientation, hold psychological continuity and intrinsic meaning for the learner, and reflect the way what has been learnt affects the learner's own way of dealing with problems in their everyday living. Our exploration of the notion of poetic thinking has suggested the desirability of assessments which are openended, modifiable by the participants through their

evolving interaction with a situation, and involve the empathetic sharing of particular responses by the assessor. It is important to note that although these latter requirements arose out of a consideration of the nature of poetic thinking, there is a highly significant sense in which they are appropriate to the assessment of any thinking, since if we wish to achieve assessment in any full educational sense we must be significantly concerned with the progress of unique individuals in their own understanding of what they have learnt. This need for genuine receptiveness to the individual child means that educational assessment itself, therefore, has an poetic dimension. Once acknowledged, this clearly has huge implications - most of which run counter to the current drive to produce standardised scores. Finally, such considerations taken together have suggested that assessment will be most illuminating where:

- 1] it arises out of an on-going learning situation and is an integral part of it;
- 2] it draws on real concerns of the participants;
- 3] it parallels but does not simply repeat previous classroom situations and tasks.

Assessment and the National Curriculum

Much of the current concern in primary schools with assessment of pupil performance has been provoked by the demands for monit ring the achievement of National Curriculum attainment targets and more detailed statements of attainment. It

is difficult to say very much concerning the specific requirements of the National Curriculum in this regard at present as they are in a state of flux both in terms of their scope and form. For example, at the time of writing an increase in the prop tion of "pencil and paper" tests is being advocated on the grounds of ease of administration and economy of resources. However the underlying assessment in the National principles which were to guide Curriculum are set out in the report of the Task Group on Assessment and Testing (TGAT) (DES, 1988), and examples of what are considered to be suitable tests are described in Appendices D and E of that report. Since one of the central aspirations of this report was to produce a framework for testing which would avoid many of the well known pitfalls in the area, I intend, in the final part of this chapter, to look at these proposals from the point of view of the criteria for assessment which have emerged from our fore going discussion. The likely effects of any deviation from the TGAT proposals - particularly in the future will, I direction of streamlining tests for ease of administration think, become very apparent in the course of this discussion.

The first thing to note is that it is clear (and hardly surprising) that the tests described in the TGAT Report focus on rational-calculative thinking in its various forms. All the tests, when they rise above the level of basic comprehension, set problems to be solved, albeit of a wide variety and involving differing modes of presentation, operation, and response. Indeed, in the school context, perhaps the very notion of a "test" implies this calculative orientation towards the nature of thinking, since it commonly denotes evaluation in accordance with a carefully pre-

spec fied set of public standard. Be this as it may, t is is clearly the case with the "standard assessment tasks" - "SATS" - with which the report is concerned, for as their name suggests, their purpose is to provide common points of reference in the moderation of more informal on going assessments made by individual teachers.

Now if we consider such tests in the light of the criteria of adequacy previously set out, one welcome feature of many of the tests described in the report is the importance attached to group discussion of the problem set. This has two virtues fr m the point of the view expressed in this chapter. Firstly, it enhances the possibility of the pupil's understanding of the web of interrelated concepts being brought to bear in working towards a solution; secondly, it may facilitate some degree of psychological continuity (albeit, in a weak sense) through calling into play previous experience and concerns. Both of these considerations are likely to be best accommodated in what TGAT refers to as "ntegrating tests', exemplified in Appendix D, which consist of a series of evolving tasks (eg investigations into the properties and uses of various materials) which could form an integrated part of the ongoing work of a class.

Again, psychological continuity and intrinsic meaning for the pupil could well be retained to some degree in tests who e specific content consisted of subject matter and situations which are commonly of interest to the group being tested, eg perhaps "animals" for younger children, though better still would be a use of SATs which maintained a fairly constant form in term of skills

and underlying concepts involved but which allowed of some substitution of differing specific subject content - to be determined by the teacher in the ight of her knowledge of the concerns of her pup ls. Finally, from the point of view of appropriate testing of rational-ca culative thinking, the notion str ngly emphasised in the TGAT Report of teachers being able to select from a bank of SATs, might allow some scope f r the criteria of attainment being selected retrospectively, so as to reflect the actual learning experiences of a particular group of children, though clearly this will largely depend on the range and imaginativeness of the tests "stocked".

The above features are, then, generally to be welcomed, and some of my comments intimate ways in which considerations raised by the notion of poetic thinking have a bearing upon, and could lead to exploring, ways in which pupil participation n the assessment could become more interactive. But so far I have only the Report's recommendations for assessment from considered the point of view of rational-calculative thinking, and the poet c role of the teacher in facilitating is authentic development. With regard to the issue of the assessment of the development of poetic thinking per se, clearly the notion of a standard assessment task would need to become even more tenuous, and is perhap abandoned altogether. If this is in fact the view of those who compiled the TGAT Report, it is to be applauded - as long a, that is - this does not carry with it the practical consequence that the development of children's poetic thinking becomes viewed as being of lesser importance, and tha assessment of progress in this area need not receive proper attenion. It may be that here there will be a pressing need for teachers to engage in what Charles Bailey has called "artful subversion" if the place in the curriculum of aspects of education that are not susceptible to standardised measurement is not to be undermined.

By way of conclusion I would like to make a final comment on the implications of taking assessment of children's thinking seriously. It is only too evident that if we really with to assess the development and quality of children's thinking in either its rational-calculative or poetic modes, this is like y to be timeconsuming, require sensitive and skilled judgment, and will often produce results that are straightforward and easily understood by people external to the teaching situation. Real assessment of children's thinking will rarely produce a simple set of grades and will be seriously corrupted by any attempts to impose such reductionism. Now these features are not criticisms of such assessment, but criticisms of some of the purposes to which some people have seemed to wish to put assessment (eg., as a cheap and public way of maintaining standards, making easy comparisons of quality f education between teachers, or schools etc.). Both the large resource implications, and the strict limitations on the extent to which assessment of children's thinking can be used as a yardstick for purposes external to the educative process itself, must be honestly acknowledged if what should be a spur to m re effective teaching is n t to be turned into a distorting and vacuous charade.

CHAPTER FOURTEEN TEACHING AS POETRY

Towards a philosophy of teaching

In this final chapter I would like to try to draw together a number of points which have emerged in a rather piecemeal way during the course of this thesis, but which seem to me to provide coherent philosophy for teaching with regard to development of children's authentic thinking and understanding. It may be recalled that in a number of places I have made mention of the idea of there being a poetic element to the teacher pupil relationship in which authenticity of thought is being encouraged. Similarly, the notion arose again in the context of assessment which seriously seeks to reflect an individuals true understanding. What lies at the bottom of these suggestions is a claim which is fundamental to poetic thinking itself, namely, that to reveal an individual in its uniquene one's stance has to be basically receptive-responsive, rather than manipulative. One has, in the first instance, to listen non-judgmentally ie., nonevaluatively, if the thing or person is to be self-expressive, and thus authentically known.

But, as we have noted, teaching not merely a matter of being receptive to what is there, it is c neerned with the bring ng about of desirable change, ie., development. That is to say it is a form of building - a form of building which respects the

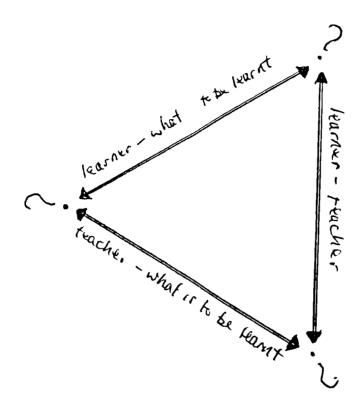
be learnt. It has to be somehow both accepting and demanding. I have previously used the term "empathetic challenging" to denote this idea. I would now like to say a little more about it.¹

In many approaches to education, and life in a more general sense, there has been a tendency to reflect an enduring philo phical dichotomy between the subjective and the objective, personal feeling/intuition and public rationality, what is present "in the mind" and what is present "in reality". This is in part, the history of a dialectic between classicism and romanticism which, in turn, has underpinned the educational debate between traditionalism and progressivism - the one taking the structure of objective, public, knowledge as its main point of reference, the other taking the consciousness of the learner as its main point of reference. While there have been varying attempts to overcome this dualism, in many cases they have not really succeeded because they have either fallen back into it, or attempted to reduce everything to one or other pole - as in the cases of philosophical materialism and idealism. How then, does the idea of poetic thinking help in this regard? How can it help to restore a proper balance between the subjective and objective poles in the devel pment of thinking and understanding? It does this, I suggest, by encouraging us to focus not on the poles, but the relationship between them. That is to say it predispo es us to take as primal the relationship between teacher and learner, and learner and what is to be learnt.

It is the quality of these relationships, which in effect form a triad, that should be the central concern of those who wish to promote the development of children's thinking. The elements of this triadic relationship are n thing independently of it, they are sustained only insofar as they remain expressions of it. Existentially, there is no teacher in the absence of a learner and something to teach; there is no learner in the absence of something to be learnt; and there is nothing to be learnt in the absence of a learner. Put more generally - and starkly - things have no significance in the absence of consciousness and consciousness has no existence in the absence of things, for it precisely consists in its relating to them.

Our starting point for a theory of effective learning has to be the actual experience of learning. Experience is the name we give to the relationship between consciousness and things in their mutual reaching towards each other. That s what they are: a mutual reaching out, elements-in-relationship. When we are struck, say, by the brilliance of a colour, the heaviness of a rock, the solidity of a building, the s ft ess of a fabric, the appel of a story, the magnificence of the heavens or a mountain, the e egance of a proof or theory - all these qualities of things, that make them what they are, are neit er simply human projections (there's a clear sense in which we regard them as belonging to the things themselves), nor simply independently existing pr perties (they exist as such - stand forth - only in being apprehended by consciousness), but are expressions of the relationship in which consciousness and things are rooted From this perspect ve the

e en al relati nship in which h activitis f t a h g are rooted can be represented dia rammatically as foll ws



The triadic relationship.

If we take, then, the quality of this triad'c relationship as primal, we have to look at the quality of ts openness, and the extent to which it is free to follow its own path and establish its own goals in the light of its own constantly ev lving needs. From this perspective, facil tating learning requires the teacher to "listen" for what is incipiently there in the consciousness of the pupil - the questions and possibilities that his or her present thinking inherently holds within itself - and to challenge him or her to acknowledge and pursue them. To do this te teacher mu t also "listen" to what things themselve (including, of course,

human culture and its artefacts) have to offer so that she can put the pupil in the way of new experiences which may contribute t a deeper and broader understanding. Thus she is attempting t f cus on neither the individual child in isolation, nor some prespecified piece of knowledge, but the engagement of children in whatever seriously occupies them - the r way of relating in a situation, and what is provoking it. In the light of her own knowledge and experience, she can thus try to help the child t identify and explore what calls to be thought in this situation and to give the space for this to occur.

Since I am here advocating a stance towards teaching which takes as a central point of reference the quality of particular learning situations it is difficult to be very specific about exactly how the teacher should operate. There must be considerable scope for professional judgement here. Indeed, this is f the essence. But there are some features of this stance which can be sketched out a little more fully. For example, it is clear that discussion will be an important element of this approach and that the sorts of question asked in order to stimulate it would need to be of a certain character - essentially focusing on the qualty of relationship between learner and what he or she is learning rather than assumed end-products that the teacher may have in mind. They would therefore tend to be of the following variety:

How are you getting on?
What do you feel about this?
What made you decide to do it this way?
How do you know?

What else did you think of?
What was the hardest thing here?
How could you deal with this problem? etc, etc.

Such an approach to questioning has been termed "personcentred" because it focuses on the learner's actions, ideas and problems rather than the subject matter as such, and provokes the child to articulate how he is engaging with the situation, to justify his ideas, to reflect on problems. (See, for example, Elliott, J., & Adelman, C. 1975.) But it seems to me that it is important for the teacher to further challenge thinking by on occasion offering something of her own response to the situation - pointing out features that strike her as significant - but again, in relation to aspirations expressed b y the learners in their own engagement with the material rather than in terms she simply wishes to impose on them. Through this she would be able to help children to become aware of more than what may be immediately apparent to them - in terms, for example, of the fullness of what is present, what it could be taken to exemplify, relationships to other things they have learnt, and of possible alternatives through offering the views and experiences of others who have been engaged in a similar enterprise (drawn perhaps from the history of the discipline, or work that other children in the class have done). In other words she will attempt to bring out some of the further possibilities of the situation, a sense of the fuller potential that the engagement holds within it.

Now of course a crucial aspect of all this will be the spirit in which it is done - and received. It needs to occur in a spirit of

offering raher than prescribing - and offering out of a sense of what things themselves demand rather than purely out of the teacher's personal preferences or anxiety to cover some externally pre specied content. That is to say there is an important impersonal element to the relationship in which the teaher's contributions arise out of her sense of something other than herself, her sense of things themselves in the traditions in which they have achieved their significance. Thus such interaction is not in anyway about indulging the egos of those involved, but about getting coser to truth, an understanding rooted in responsiveness and responsibility to what is there. Harking back to the distinction made when we were discussing authenticity: self-referencing, yes, but not se f-centredness - on the part, now, of both pupil and teacher.

This last reference brings back to mind another important aspect of t e interaction between teacher and child: the need to w an the child away from "crowd" re pon es. In the educational riadic relationship I have introduced into our the d scussi n t is chapter offers, I think, an important perspective on this ss e. It begins to make it clear that personal meaning", 'subject ve weight" is not purely a personal matter; it occurs as part of a arger relationship in which things themselves and the views and experiences of other people are also involved. Thus in helping he child to identify and discover his deeper concerns o es for w ich he feels a sense of responsibility - the teacher's r e is prec sely this: to point him at things which he can recognise as relevant, but not simply in the sense of what satisfies ım ed a e whim or curiosity, rather in the sense of what makes a call up n him, what demands something from him, what he feels (however embryonically) needs a response arising from his own sense of the nature of the thing he is dealing with.

And, clearly, the role of the teacher here in helping the child explore his concerns is not to jump in for him and hand him back his problems ready sorted out. By taking over someone's concerns and problems in this way one throws them out of position - disengages them - leaving them to mentally "free wheel" aimlessly while at the same time becoming dependent and dominated. Rather, by attending to the enterprise itself, one helps the child to understand himself in his care - in his "relationshipwith" - to grasp it more adequately and work towards his own provisional solutions. Thus he becomes liberated through being more deeply situated in his relationship with things - through the enhancement of his ability to receive and to respond. In this way he is given positive freedom rather than the negative freedom of thoughtless non-intervention that has become associated with some forms of child-centred education.

In this way, too, teaching can become what one might term a form of "poetic building" - a f rm of building which expresses respect and harmony rather than manipulation and imposition. Such teaching would have as its central concern the organic growth of individuals in their own relationship with the world, and not to process them in accordance with norms that are external to them. Yet, nonetheless, it would be concerned, too, to help them feel the call for themselves of what is there to be thought. This at least would be the ideal. But, of course, it is well

known that teachers do not operate in circumstances where pure ideals flourish. So what is the point of all this in real terms? How can it make a difference to anything?

Ideals and practice

It would be disingenuous to advocate such an educational ideal as teaching as poetic building without discussing some of the obvious practical issues that it throws up in schools as we presently know them. It is probably true that we are entering a period when the formal constraints on teachers' freedom and the explicit demands on an individual teacher's time and energy are greater than at any period since the turn of the century when the system of payment by results was in operation. How then, is the ideal of poetic openness and building to find practical expression in such a situation? Before attempting to answer this question d rectly I must make clear some important points concerning the nature and function of educational ideals.

The first - and central - point is that it is not in the nature of an ideal that it be perfectly attainable: it is not the function of an ideal to provide a fulfillable objective, but rather to provide a sense of direction and underlying purpose. An ideal indicates a path one may wish to tread rather than a destination to have arrived at. Two things follow from this. The first is that the extent to which anyone achieve an ideal is always a matter of degree. Sometimes one may not get very far, but the assumption would be that it is better to get some of the way than none of the

way. The second is that one measures success not imply in terms of how far one gets, but equally in terms of the conditions under which one is "travelling. In uncongenial circumstances to travel a short way deserves to be a source of considerable satisfaction. Many teachers have a well developed sense of what counts as a real achievement for a particular child which takes proper account of where that child is starting from. This is prec ely the stance that needs to be adopted in gauging their own performance in terms of an ideal. It is lack of realism in the application of ideals, rather than lack of realism in the ideals themselves, that leads to frustration and disillusionment in practice - which in turn can so easily form a (false) basis for dismissing them out of hand.

A second very important point is that it is not the function of ideals to provide recipes for teaching. How, in detail, one is to teach cannot be simply determined by an ideal, which by its very nature exists independently of a particular teaching situation. Indeed, as was noted in Chapter Three, there are smply too many context-dependent variables in teaching to permit the successful use of any off-the-shelf recipes. An ideal provides a sense of purpose which is one consideration to be brought not play along with many others in making practical decisions about what to do. That is to say, how an ideal is to find expression in a particular teaching context - the extent to which it should even come into play - is a matter of the creative response of the teacher involved. It will need to take account not only of such objective features of a situation as resources and externally imposed constraints, but the disposition of the children and the teacher's own strengths

and weaknesses and level of confidence. There are always going to be many compromises, and the thing to be aimed for is to strike the best compromise under the circum tances. Teachers never start with a blank slate upon which to simply etch high flown ideals, they always take up an on-going situation to which they often have to re pond in a piecemeal way over a period of time. Indeed sometimes the most effective way of working towards an ideal is to use it as a criterion in term of which one evaluates past and present practice and in the light of this propose small but significant changes to try in future. That s to say, ideals are often best pursued through gradual evolution rather than revolution, and in this process they may themselves become reinterpreted and refined in the light of new experiences and deeper understanding of particular contexts that the attempt to express them can itself provoke. For to seek to actively promote an ideal can lead us to a k new questions, see existing practice from new perspectives, re conceptualize old problems and become alert to new soluti ns 2

Practical organisation

Given this understanding of the way an ideal functions in terms of practical decision making, let us now turn to the issue of p anning and organising for teaching as poetic building. The first thing that I should like to emphasise is that there is nothing particularly esoter c involved here. Focu ng on the quality of the openness in the triadic relationship between teacher, learner, and that which is to be learnt, broadly requires three things:

- 1) To establish as clearly as possible wh t is, in tially at least, negotiable and what is non-negotable about one's situation. In a context of increasing formal requirements placed upon teachers, what real freedo to respond to individuals remains? Discussion in Chapter Twelve suggests that there is no blanket answer to this question and that we need to examine different aspects individually, and in terms of degree of possibility rather than all or nothing.
- 2) To gain a clear understanding of, and feel for, the procedural principles involved in structuring and monitoring openly developing situations, as discussed in the previous two chapters.
- 3) To develop strategies for the practical management of such situations and the organisation of res urces.

It seems to me that the poetic approach has both its advantages and its challenges in these practical respects. It will be helpful to outline these as a preliminary to looking at ways of approaching more specific practical problems.

The practical advantages of the poetic approach are as follows: the teacher is released from the stress nvolved in maintaining an appearance of being "all-knowing and totally "in charge"; as children grow in confidence in their own thoughts and ideas, so the teacher is released from the mll of having to constantly provide them with inspiration; the teacher becomes a

learner a co worker with its concomitant satisfactions in terms of receiving from the situation as well as giving to it; children become less demanding of teacher time in terms of petty instructions as they learn to use the rown initiative and take on more responsibility for their own learning. The main **problems** are, I think, a oss of the sense of security that a carefully prespecified set of objectives can provide; the loss of convenience of pre-packaged schemes of work; the difficulty in anticipating - and therefore providing - relevant resources; anxieties about monitoring progress.

How are such problems to be overcome? Solutions are clearly going to be very context specific, but perhaps the first thing to be said is that the poetic approach suggests a change of attitude towards the problems themselves. They become regarded less as obstacles to be overcome in order for learning to occur, and more sources of learning in themselves. The notion of coresponsibility and working with children rather than upon them suggests that finding practical solutions to at least some of these problems is an integral part of de eloping children's thinking and that they therefore need to be brought int such decision-making. In this way they will be able to share the teacher's concerns and benefit from rich opportunities to develop their own practical judgment in matters which are of prime concern to them. In this way, too, their thinking can become rooted in the realities of where compromises have t be negotiated and situations responsible foresight and planning have to be exercised. With this in mind, let us consider some practical suggestions for enabling such co responsibility and particip ton.

Firstly, it will presumably be important for the teacher to have a clear idea of the likely practical opportunities and constraints under which the work will generally have to be undertaken - such things as availability of rooms and other school based re ources, notice needed to obtain material from the local library, to arrange day trips etc. Secondly, it will be important to allow sufficient time for proper dicussion and negotiation of the area of work itself, and for it to be properly resourced. While clearly, for the many reasons rehearsed throughout this book, it would be quite inappropriate to attempt to provide a universal procedure for the practical organisation of such work, the following represents an example of but one such approach - and one that I have seen used to good effect with a class of seven to eight year olds - which might be considered and adapted (or rejected! according to circumstances.

Having established through d scussion the general character of an enterprise in terms of its broad aspirations and content, the class might be divided into groups to consider in more detail their own interests, and the possible requirements of different elements in terms of skills and knowledge, time and resources. (They may well record their ideas in their own webs or flow diagrams etc.) The results of these discussions could be brought back to the class as a whole for further evaluation in terms of their rationale and feasibility, and sts of preparatory tasks could be made with responsibility being assigned to appropriate individuals or groups. Depending on the extent of the enterprise, such pre minary discussions might take place before a weekend,

r a shorter school holiday such as half term or Christmas, so that there is proper opportunity for all involved to get together whatever is needed before the project proper gets under way. In this way everyone has the chance t develop a feel f r t e w rk and a responsible attitude towards it in terms of its demands and practical constraints. Of course, as new opportunities and problems arise during the progress of the work solutions will need to be negotiated between the interested parties and compromises worked through. Throughout, the role of the teacher would be to support, provoke, challenge, in the ways previously discussed in order to enhance the quality of children's engagement and understanding.

But, now, can young children handle this? I suspect there can be no general answer to this. No doubt some will better than others and we must simply be careful not to make quick assumptions on the matter. There is certainly considerable evidence to suggest that even pre school children can, given the right kind of supp rt, engage in the procedures of plan, do, review" in quite a systematic way and thus take some explicit responsibility for the organisation of their learni g.3 But whatever the possibilities here, all children need to learn to begin to take on such responsibility one way or another - and in degrees compatible with their capacities - if they are to begin to develop the qualities of thinking a genuinely free society demands. Of course many children exhibit precisely these qualities naturally enough and to a lesser or greater extent in play situations, and provided the attitude of the teacher is such that she appreciates the value of learning to discuss and negotiate, to exercise

judgement and choice, to accept personal resp nsibility and the wide range of attitude that go along with this - that is to say, to achieve a degree of authentic understanding - as being at least the equal of the learning of "subject matter", there eems to be every reason for extending this activity into the "ser ous' work of the classroom. But, in truth, this way of speaking is itself now somewhat misleading It is in danger of re-erecting the old dichotomy of child and subject matter when the burden of what I have been trying to convey from the poetic perspective is the essential relationship between learner and what is to be learnt. It is an attempt to pr vide a re-interpretation of what it is to be a "learner" and what counts as "subject matter", in a truly educational situation, which overcomes this dichotomy.

To draw things to a conclusion, one of the central points about the poetic appr ach to teaching, then, is that it provides a stance for dealing with problems which makes them the shared concern of both teacher and pupils, and works towards an openness in which they are resolved in ways which draw upon the ideas of all concerned. The resolution of arising problems through this kind of social relationship gives both a sense of ownership and responsibility to all involved and an increased likelihood of solutions which are genuinely tailored to the situation which they have to meet. In eschewing prespecified perceptions f situations and stock answers, in listening to and freely responding to the subtle nuances of particular situations in the senses previously developed, the teacher is not thoughtlessly pursuing some impractical and irrelevant ideal, but facing up to reality in a fuller sense. How well she will cope with it

will, as always, remain to be seen, but at least she and her pupils will be honestly attending to the truth of their situation. And, ultimately, there is no other path to secure the development of those central aspects of thinking and understanding which have been the concern of this thesis.

NOTES AND REFERENCES

Chapter One

- 1 For a recent reaffirmation of the approach to the teching of language and literature, see, for example, the collection After Alice ed ted by Styles, M. et al (1992).
- 2. Some f the issues that arise in his respect are well illustrated in the debate between David Bridges and Charles Bailey concerning one of the seemingly more educationally friendly notions t be thrown up here that f "enterprise". See Bridges, D. (1992) a d Bailey, C. H (1992). See also the discussion of the effects of the "GNP code" on our outlook on education and values in Bottery, M (1990) The Morality of the School, pp. 26-32.
- 3. See the research of Blackburn and Mann cited in Robins, K., and Webster, F.,(1989) *The Technical Fix*, Ch. 6. This chapter as a whole provides an interesting commentary on the striking lack of skills that modern industry requires of its operatives.
- 4. This point was recognised by the National Curriculum Council soon after the inception of the National Curriculum in it's publicati n Curriculum Guidance One: A Framework for the Primary Curriculum (1989). Para 2.11 states that "It is not appropriate, or desirable, in the Council's view, that all primary schools should follow the same pattern of curriculum organisation. Schools ary in so many respects that such an approach would be unlikely to succeed". Then again under "Key Issues" (para 3.3i) it states that "More effective and coherent learning will take place throughout a school where there is...a shared understanding of, and comm timent to, curricular goals and "...real participat on of all staff in curriculum policy making'. And finally, in its Conclusion we read: "It is headteachers and teachers who will translate the National Curriculum into opp retunities for learning and it is only through the imaginative application of pr fessi nal skills that standards will rise".
- 5. The imp rance of pursuing alternatives to commonly accepted truths and the broader relevance of this to the welfare of a liberal democratic society as a hole received its classic statement in J. S Mill's attack on "de d dogma" in On Liberty, Chs.

- 2 and 3. Here Mill argued forcefully that accepted tru hs should be subject to on-going critical evaluation from alternative perspectives since if they cannot be defended from such criticism they should clearly be rejected, and if they can be so defended they are more securely established and their grounds are better understood Either way, then, the result of such scrutiny aids the pursuit of truth increases understanding of the issues, and educates the participants through their active engagem nt in the debate.
- 6. See the ongoing references to this in the following DES reports: Primary Education in England, HMSO, 1978
 Education 5-9, HMSO, 1982
 9-13 Middle Schools, HMSO, 1983
 The Curriculum from 5-16, HMSO, 1985.

A useful discussion of these can be found in Dadds, M, "Whose Learning is it anyway? Concern about continuity and control in Topic Work", in Conner, C., (ed.)(1988) Topic and Thematic Work in the Primary and Middle Years.

7. Some of the extended possibilities of this are explored by, for example, Henry Giroux who has called for teachers to act as "transformative intellectuals". A transformative intellectual is one who takes up "the task of making the pedagogical more political and the political more pedagogical....In the first instance, this means inserting education directly into the political sphere by arguing that schooling represents both a struggele for meaning and a struggle over power relations......In the second instance, making the political more pedagogical means utilising forms of pedagogy that treat students as political agents, problematizes knowledge, utilizes dialogue, and makes knowledge meaningful, critical and ultimately emancipatory." In order to maintain this stance while having to work within "the overall hegmon c role of the school and the society it supports" teachers will be required to work with any number of groups "that advance emancipatory traditions and cultures within and without alternative public spheres". (See Aronwitz, S. & Giroux, H. 1986, Chapter 2.

Chapter Two

1. This point can be followed up in more deta'l in Gilbert Ryle's book *The Concept of Mind* (1949). See, for example, his cri ique of what he calls the "intellectualist doctrine" in Chapter 2, especially pages 28-32.

- 2. See, for example, Peters, R. S. "The education of the emotion in Dearden, R.F., Hirst, P.H., and Peters, R.S. (eds.)(1972).
- 3. This approach is developed in some depth and with special reference to the contribution of the arts by Hepburn, R.W. in The arts and the education of feeling and emotion" in Dearden, R.F, et al op. cit.
- 4. An interesting analysis of some of the possibilities here is provided by the Gestalt psychologist F. Krueger in his "The Essence of Feeling" (1928), translated by Magda Arnold and published in her collection The Nature of Emotion, (1968). See also, a useful discussion of two differing views of the relation between em tion and the intellect in Dunlop, F., (1984) The Education of Feeling and Emotion, Chapter 6. Here he contrasts R.S. Peters' emphasis on the cognitive with John Macmurray's view that: It is not that our feelings have a secondary and subordinate capacity for being rational or irrational. It is that reason is primarily an affair of emotion, and that the rationality of thought is the derivative and secondary one....The emotional life is not simply a part or aspect of human life....It is the core and essence of human life. The intellect arises out of it, is rooted in it, draws its nourishment and sustenance from it, and is the subordinate partner in the human economy. This is because the intellect is essentially instrumental."
- 5. This point has been developed considerably further by some writers in the field. See, for example, Kieran Egan (1990) Romantic Understanding, Chapter 2, in which in contrast to the notion of "conventional literacy" he expounds a notion of "comprehensive lieracy" which derives from what has been termed "the literacy hypothesis". The "literacy hypothesis" makes the claim that historically the advent of reading and writing, and subsequently the printed word, brought huge cultural implications such as to quite transform consciousness from how it was in the tradition. Literacy - through objectifying and g ving a permanency to thought (since all knowledge and belief nolonger had to be held in memory) - made possible and predisposed us towards, reflective abstract thought, skepticism, systematic conceptual organisations of ideas and data, a sense of objective history as against mythical stories supporting just our own culture, a sense of self separate from nature - indeed, the realm of modern rationality itself. Such qualities of consciousnes Egan argues can, and should, be recapitulated by individuals (particularly he believes by children in the 8-15 age range) and constitute what he refers to as "comprehensive literacy". This notion clearly invites subscription to a set of standards vastly broader than

those associated with the mechanical ski ls of decoding and encoding which he ascribes to 'conventional li eracy".

Chapter Three

1. In an interview given on The Education Programme', broadcast by the B.B.C in April 1987.

Chapter Four

1. This sort of point has the ring of truism about it and is perhaps now something of a common ace, but the incredible power of publicly shared concepts to transform existence is brought into sharp focus when we recall the following episode taken from a biography of He en Keller:

Helen was blind and deaf. Soon the few words she had learnt before her illness withered on her tongue, and soon she was mute too. Her body continued to grow, but her mind was cut off in the dark silence. She seemed more like a phantom than a child - a phantom wandering through a world she could n longer understand.....Then came Annie.

One morn ng Annie led Helen down to the old well house that stood at the foot f the garden. Helen loved to play in its cool dampness, s now she scurried cheerfully inside. Annie took a deep bre th and followed. She began to bang the pump handle up a d down, and soon a stream of water poured fr m its 1 p. S e grabbed Helen's hand and stuck it under the icy flow, a d in the same instant began to spell W-A-T E R nto the wet palm.

Helen went rigid and pulled wildly towards freedom. But Annie held on. W-A-T-E-R....W-A-T-E-R....W-A-T-E-R - she drummed the word faster and faster into Helen's hand.

Suddenly Helen stopped struggling. Or breathing. Or doing anything except concentrating on the shapes in her palm W-A-T E R. She felt the word burn down through her hand and into her brain. W A T E-R....a light flooded across her face.

W-A-T... she began to spel the word back to Annie. And with each movement f her own finge s, the namelessness

retreated. She understood! These movements stood for the cold liquid that was pouring over her hand! They always stood for that, and nothing else! She understood!.... The little girl who'd been locked away in dark silence would never be quite so lone y again. She would never see the world outside. She would never hear it. But he was learning to communicate.

She could talk with her fingers and listen with her palm.

(Mickie David on, Helen Keller's Teacher

2. The general point concerning the way human purposes condition our whole categorial apparatus is discussed from an interesting perspective by Ernst Cassirer (1946) in Language and Myth, ch. 3. Here he argues that the classical theory of abstractionism which supposes that concepts are formed through comparison and the abstraction of shared properties may characterise the formation of an upper stratum of concepts produced through the activity of intellectual discursive thought, but this itself presupposes that there are pre-given properties in experience to be so denoted. Thus there is a need to postulate a lower stratum of what he terms "primordial linguistic concepts" which he believes are the product of a process of mythicolingiustic "naming". Here, far from ideation being the result of a reflective comparison of attributes, the attributes themselves are posited by a process of extreme condensation in which they are first heightened and thus to some extent stabilised in experience as "momentary gods' which arise without discursive reference to anything beyond themselves. They are experences in which the subject is totally absorbed in the here and now of phenomenon itself. Now the empirical claims being made here about the character and contribution of mythical thinking (interesting and important as I think they are) are not for us at present so much the issue as the clear recogn tion that "noticing... must precede mentally the function of den ting" and that the direction of our noticing will be conditioned by our purposes. Thus, on this view, both the concepts formed through intellectual discursive thought and the particular pr perties that it works upon - selects and brings into combination - are thoroughly conditioned by hum n purposes and practices. As Cassirer himself puts it:

"..the recognit on of function precedes that of Being. The aspects of Being are distinguished and co-ordinated according to a measure supplied by act n - hence they are

guided, not by any "objective" similarity among things, but by their appearance through the medium of practice, which relates them within a purposive nexus." p.39)

- 3. It is important to note that the view is all o clearly compatible to some extent with the use of what Robert Dearden (1967) has termed "guided discovery" in which the teacher constructs a learning situation perhaps by setting a problem in a certain context in which the child arrives at some knowledge new to her for herself. But given the sheer volume of concepts to be learnt and the abstract character of many of them previously noted, together with the likely practical constraints, this approach could only be advocated on a limited scale by the rationalist. However, as will be seen in subsequent chapters, if the scale of this approach must necessarily be limited, its contribution might be of the greatest importance to fostering some of the qualities of thinking which rationalism requires.
- 4. Some of the confusions and educationally unsound motives that inform much loose talk of "skills" in educa on are explored in Barrow, R (1987) and Smith, R (1987).

Chapter Five

- 1. This account is set out in his paper "Education: the engagement and its frustration' in Dearden, R.F. et al (eds) (1972).
- 2. See, for example, Lane, H (1976) The Wild Boy of Aveyron.
- 3 See Wittgenstein, L., (1958) Philosophical I vestigations.

Chapter Six

- 1. See, particularly, Hirst, P.H., "Liberal education and the nature of knowledge" in *Philosophical Analysis and Education*, Archambault, R.D. (ed), (1965). See also Hirst, P.H., and Peters, R S, (1972) *The Logic of Education*, Ch 4.
- 2. As Hirst put it in *The Logic of Education*, op it. p.62. "...there can be no experience or knowledge without the acquisition of the relevant concepts. Further, it is only when experience and thought, which necessarily involve the use of concepts of some

sort, inv lve those shared in a pub ic world, that the achievements with which we are concerned are p ssible."

This view was itself foreshadowed by Richard Peters (1966, pp. 48-49): The ideas and expectations of an individual centre of consciou ness are the product of the initiation of an individual into pub ic traditions enshrined in the language, concepts, bel efs, and rules of a society." Prior to th s.. "His 'mind' is ruled perhaps by bizarre and formless wishes in which there is no picking out of objects... '

- 3. Another way of making this p int would be to consider the following situation: Suppose as a result of experimenting with blocks a child were to come up and say "Look, come and see, I can show y u that 2 + 2 = 5". Would we not know in advance that the child was doing something wrong? ie., as a matter of principle there is nothing he could show us that would establish the truth of such a claim.
- 4. The iews expressed here are taken from his book Beyond the Present and the Particular: A Theory of Liberal Education, (1983).
- 5. Ibid. The full list is to be found on page 105.

Chapter Seven

1. See Peters, R.S. (1974) "Subject vity and Standards" reprinted in the collection *Psychology and Ethical Development*. Here he quotes with approval G.H. Mead's idea that the reasonable man adopts the point of view of the "generalized other'.

Chapter Eight

- 1. In particular, I will be drawing upon ideas expressed in Sartre, J-P., Being and Nothingness, trans ated by Barnes, H. (1957), and Heidegger, M., Being and Time, translated by Macquarrie, J., and Robinson E., (1962), especially Sections 26-27 and 35-37.
- 2. With regard to the latter, history is littered with examples of the destructive effects of those who have had a strong sense of the "Moral Law" and a weak sense of human compassion which would have allowed them to temper their high principles so as properly to meet differing circumstances. Ibsen's "Brand" is a particularly powerful exemplification of this in literature the

village priest who, through his stern will and uncompromising adherence to his principles, brings about the death of both his wife and child, alienates himself from his people who come to revile him, and who, as he is engulfed by the death he has brought upon himself, recognizes the cold emptiness of his life and cries in despair

"Answer me, God, in the moment of death!

If not by wil, how shall Man be redeemed?"

And a voice rep ies:

"He is the God of love."

Chapter Nine

- 1. Rousseaus's *Emile* first published in 1762 is often thought of as founding the child centred tradition.
- 2. See, for example, the notion of "constitutive self" in B nnett, M. (1978) "Authent city and Education".
- 3. I have tried to develop this idea in Bonnett, M., "Personal authenticity and public standards", in *Education, Values and Mind*, Cooper, D., (ed., (1986). It will also be taken further in Chapter Fourteen. But ee also the moving account given by Virginia Axline (1966) in *Dibs: In Search of Self* of what was involved in restoring a sense of self-worth and the capacity t become authentically self expressive to a young child who was seriously repressed.
- 4. An interesting account of the contribution that fairy tales can make to a child's understanding of, and ability to come to terms with, his or her own concerns and anxieties is given in Bettleheim, B.,(1976) The Uses of Enchantment. Those who are sceptical about the ability of children in the primary age range to engage in and benefit from philosophical thinking might like to read Matthews, G,(1980) Philosophy and the Young Child. They may a o like to look at the materials produced by Karen Murris (1992) Teaching Philosophy with Picture Books
- 5. It should be acknowledged here that such an educational aspiration is not completely ignored by rationalists. Inded, in a certain sense, it could be thought to be amply illustrated by, for example, John White who has placed much emphasis on the role of

education in developing aut nomy and the notion of considering different "ways of life" and constructing "life-plans". Nonetheless the spirit in which this is undertaken bears all the hallmarks of rationalistic approaches naturally!) which thus ransform it into something of a significantly different character to that which existentialism here wishes to emphasise.

Chapter Ten

- 1. Some of the broader issues relating to moral values in school are explored in Bottery, M., (1990) The Morality of the School.
- 2. Some of the under ying ideas in this section have been developed in more depth in Bonnett, M. (1978) Authenticity and Education".

Chapter Eleven

- 1. See some of the later works of Heidegger, such as the collection of essays *Poetry*, *Language*, *Thought* translated by Hofstadter, A., (1971). Also, *The Question Concerning Technology and Other Essays*, translated by Lovitt, W., (1977), and *Discourse on Thinking*, translated by Anderson, J.M., and Freund E.H., (1969).
- 2. From Manley Hopkins, G., *The Major Poems* (edited by Walford Davies)(1979) p. 87.
- 3. Ibid. From "Binsey Poplars" (p. 76)
- 4. I have attempted to develop these ideas in their relation to education in Bonnett, M (1983) "Education in a destitute time". For an outline of Heidegger's more thorough-going analysis of some of the issues raised for thinking per se, see Appendix One. In this appendix the term meditative" is used instead of "poetic". This reflects something of Heidegger's own usage when he explores its possiblilities for rethinking the ground from which calculative thinking springs.
- 5. Although coming from very different perspectives, such concerns over the percei ed tendencies in discurs ve rationality to insulate, uproot and mechanise, thinking have been expressed by many thinkers. For example, D. H. Lawrence argued that thinking through the medium of trains of ideas" prevent us from living more spontaneously and therefore more truly ut of our "vital"

affective centres' (eg., in Education of the People, 1936) and he vigorously attacks what he takes to be the cheap instrumentalism and stultifying effect of rationality in general in the polemical Benjamin Franklin (1923). (See, also, the very useful discussion of Lawrence on these issues in Bantock (1952, Ch. 6.) A particularly vehement attack on the uprooting aspect of modern rationality at its incepti n in the thinking of Socrates was mounted by Nietzsche in Twilight of the Idols. Here he accuses Socrates of making a tyrant of reason which reflected the destroyed trust in the vital instinctive life. In contrast to Socrates elevat on of dialectics - the pursuit of truth through rational argument and debate - and his "phony" equation of 'reason = virtue = happiness", Nietzsche writes:

"With Socrates Greek taste undegoes a change in favour of dialectics: what is really happening when this happens? It is above all the defeat of a nobler taste.....Before Socrates, the dialectical manner was repudiated in good society: it was regarded as a form of bad manners, one was compromised by it. Young people were warned against it. And all such presentation of ones reasons was regarded with mistrust. Honest things, like honest men, do n t carry their reasons exposed in this fashion. It is indecen to display all o es goods. What has first to have itself proved is of little value...... " (p 41)

6. I have also explored them in "Personal authenticity and public standards' in Cooper, D (ed.)(1986). See also an interesting discussion of a number of issues that relate to my position on this p int and the general theme of this chap er in Paul Standsh (1992) Beyond the Self, Chs. 5 & 6.

Chapter Twelve

- 1. Thus over recent years researchers have identified differences in terms of convergers/divergers focusers/scanners, holists/serialists, analytic/global, reflective/mpulsive. See Conner, C. (1988) f r a useful survey of such findings
- 2 See Stenhouse, L,(1975) Intr duction to Curriculum Resear h and Development, Ch. 7. Also there is an interesting discussion of some closely related issues in Bridges, D,(1988) Education, Democracy and Discussion, Chs. 1, 2, and 7.

Chapter Fourteen

- 1. I have also developed this idea in direct comparison with rationalist approaches to education in a previously mentioned paper "Per onal authenticity and public standards" in Cooper, D.E. (1986).
- 2. For so e further development of this claim, see Bonnett, M., and Dodd ngton, C. "Primary Teach ng: what has philosophy to offer?' n The Study of Primary Educ tion: A Source Book, Volume One, edited by Lofthouse, B, (1991).
- 3. With regard to the capacity of pre-school children to work in this way see, for example, the work and publications of the High/Scope Institute, London. See also the interesting account given by Alistair Fraser of ways in which primary school children took an active part in broad areas of decision-making in his school (Fraser, A, 1987) and the accounts of child-led project work given by Roger Revell (1987, 1988).

APPENDIX ONE: Heidegger on thinking

A cen ral theme which runs through much of Heidegger's work - particularly his later work - is the notion that broadly speaking there are two ways of thinking: the "calculative" and the "meditative" (r 'poetic"). Heidegger holds that both are justified in their own way, but that the former, because of its groundless nature (i.e. its necessary non-concern for ground) and its aggressiveness, is coming to dominance in a way which is uprooting man so that all his works are becoming increasingly vain. Somehow meditative thinking has to re-open the possibility of re-establishing a ground for modern man and his calculative thinking It has to bring him to a place from which he might discern how the different forms of calculative thinking which he has developed might be properly rooted, and thus how they might enter into his I fe without usurping his essential natur.

But, now, what is this distinction between caculative and meditative thinking and how are Heidegger's claims regard ng each of them t be understood?

The designation "calculative' implies a thinking which orders and manipulates - a thinking which operates within a means ends context. It applies, according to Heidegger, to all thinking which we would today normally think of as taking its rise from the tenets of logic, in particular the law of non-contradiction. Heidegger argues that for any such thinking to operate it has to fx things in advance by representing them to

tself, for only on this basis can statements - he assertion of omething about something - arise, and thus therewith a place occur for the operation of such laws. Proposition 1 thinking then, in accordance with the logic of propositions, analyses, combines, and orders representations and in this way sets things up so as to be manageable, i.e. suscept ble of subjugation to some more or less reality pre determined end. It allows us to possess processing it. Through representation we are involved in a generalizing beyond the here and now in such a way that a space is created for a wilful manipulation of it. Thinking, itself, then, becomes increasingly conceived as related to intentional action (indeed, in extreme cases it is seen as some sort of mental shadow of action, or as a sort of truncated action as in, for example, Hampshire, S. 1959) with the consequence that originality and creativity become identified with forms of "doing" such as dissective analysis and ingenious synthesis, understanding with a grasping and judging, while clarity comes to mean a demand for the eradication of ambiguity in favour of univocity (equivocity being anathema to the practical man). Thus such thinking is caught up in a resolve to overlook the richness, vitality, and openness of things in favour of levelled-off abstractions. spontaneous order of the concrete is sacrificed to the mechanical rder of abstract organisat on.

Heidegger claims that this conception of thinking has long been on its way, embedded as it is in the ancient and fundamental distinction between subject and object, and that its coming to dominance is the historica unfolding of the holding sway of this distinction. His line of argument would seem to be as follows: in there "beforehand" independently of the ego and lying ready to be perceived, a mode of thinking is set on its way in which the goal of human dominion over the earth bec mes ever more explic t and dominant. This is so because in setting up things as something "other" - as objects - which must stand over and against the ego, the ego must be thought as will - as something that can act purposefully upon these objects. The ego thought as anything less - e.g. as a purely passive recipient of sensations - would deny its independent status and thus represent a collapse of the subject/object distinction, since object for-a-subject implies a notion of significance which cannot be dissociated from the idea of agency.

Of course, none of this need necessarily be explicit in the beginning when the subject/object split occurred to thinking On the contrary it could, and seemingly did, remain implicit, covered over, awaiting its historical working out and arriving into dominance. Thus it certainly need not be the case, and seemingly was not, that early Western thinkers who tought in terms of the subject/object distinction were necessarily sensible of any wilfu motive when, for example, they developed extensive classificatory systems as a way of making sense of he world. Indeed that which was thus fundamentally holding sway in their thought would be precisely that which remained - and largely remains today - unthought. Now for Heidegger, this lack of appreciatin of its own essential self-assertiveness would not be for calculative thinking a merely contingent matter. Through its necessarily representing things to itself, it sets things up in a certain way,

making them readily available - "on cal" - as a sort of "standing reserve" (Heidegger, M. 1954b). And taking its start in representations and busying itself in manipulating these representation it becomes incapable of thinking its own ground, of being op n to its own wilful essence: by its very nature it thoroughly covers this over and ensures that it remains unthought. That is to say, by virtue of its own essential nature it must remain oblivious to what Heidegger terms the "ontological difference" - the difference between "Being" and "beings" - though it, itself, is only possible in the space that this distinction opens up (Heidegger, M. 1957). The "differencing" of this difference is something to which we must return presently, but let us just note here that the traditional notion of being as presence, which all modern thinking presupposes, is never properly determined by that thinking even when it is metaphysics. It is not just that traditional m taphysics has yet to offer a satisfactory answer on this; it does not acknowledge the question. Presence is the undetermined given.

The ab ve characterisation of calculative thinking begins to suggest some of the qualities of a thinking that will overcome it. Clearly such thinking will need to free itself from a pre-occupation with the act lity which is given to us through representations - the actuality of what for us has become the familiar world of specified beings with which we are involved in an ordering and accounting way. It will involve what Heidegger has termed a "step back' t wards the originary (Heidegger, M. 1957). By this is meant not an historiographical stepping ack - a return in thought merely to certain factual occurrences which are seen perhaps as

quasi causal precedents, or a comparing of an early thinker's ideas with those of later thinkers where we dwell nly with what is said, seeking similarities and modifications. Rather the step back for Heidegger is the attempt to get away from what has been said - the ideas which have been expressed and datable factual occurrences which we attempt to subsume through an ab tract ordering. The step back is to be a step away from this actuality that allows us to come towards it afresh - by being released to that which has withdrawn itself in what has been said and what has happened, but set all this on its way. Through the step back meditative thinking seeks releasement to "that which grants" (Heidegger, M. 1954b).

In contrast to calculative thinking, then, meditative thinking does not categorize represent things to itself - and is non willing, or rather it is non self-willing (since Heidegger wishes to maintain for it a certain steadfastness). Further it does not proceed on the basis of some pre specified conception of its destination as say scientific thinking does where the "destination' is some sort of generalized explanatory account of the phenomena set up in a certain way. But how could this be? How could a thinking proceed without some conception of its goal and without some sort of categorization of its material? Would it not then collapse into a totally undifferentiated and directionless enterprise, i.e. not an enterprise at all? To understand why this need not be so a number of qualifying remarks should be noted

Firstly, Heidegger is not suggesting that a thinking can proceed which does not involve an acknowledgment of

di tinctions. It is rather that distinctions need not be categories of the sort which traditional I gic presupposes. He develops this point in his consideration of the "transcendental orizonal representing" character of calculative thinking (Heidegger, M. 1969). By this characterisation, I take him to be picking out the way in which such thinking involves a standing back from things which overarches them so as to locate and articulate them in accordance with a certain pre-existing meaning-giving framework ("horizon") which thus secures them in terms of the familiar. (S mewhat akin to the Piagetian notion of the development of understanding through the process of "assimilation"). Elsewhere, in Science and Reflection, he refers to the methodology of scientific enquiry as an "entrapping securing" where:

"Every new phenomenon emerging within an area of science is refined to such a point that it fits into the normative objective coherence of the theory" (where science itself is seen as "the theory of the real'). (Heidegger, M. 1977.)

Our general comportment towards things today, then, is such that that which cannot be so secured is closed off, quetly covered over: calculative thinking is the ordering of the orderable, and this will ultimately be seen as an ing from the ordering of the orderer - the perceiving subject as agent. (The course of the coming to dominance of calculative thinking has been marked by the unf lding of subject as will as gathering ground of bjects - i.e. man as the primary subjectum - from out of subject as merely op osed to object, in which t was already implicit (Heidegger, M.

1952). Thus, for Heidegger, the completion of metaphysics is world as will of this subject, the "will to power" of Nietz che).

Such thinking, then, is necessarily a closing off which coers over this very facet of itself since it cannot acknowledge a reality beyond the orderable. It demands (and must demand) not that things be represented as object but that the subject as subjectum - the ground of objects - be represented as an object too. Thus Heidegger argues in The Ont -theo-logical Constitution of Metaphysics (1957b) that traditional metaphysics is itself just as much a form of calculative thinking as are the exact sciences, and is therefore also located in that region which rests in the oblivion of the difference between Being and beings. In seeking the ground of beings both as that which is indifferently general to them - the original - and as that which accounts for each of them, un fies the highest - it posits this ground as itself a being: the them 'First Cause". But in this, "the philosopher's god", that out of w ich its own essence arises, remains unthought.

Somehow, then, meditative thinking is to involve distinctions which are non-objectify g and thus not imposed upon the things themselves. Rather they are to authentically arise out of things, are in some real sense received from them. According to Heidegger this can occur through, amongst other ways, our listening to their names. He argues that names, proper, are not the result of a designation - as if there were first of all the thing to which a word is hen applied, the thing name relationship being a relationship between two independently existing objects. Such a conception f naming supposes that we

have already represented the thing to ourselves - caught it under some description which reifies it - and then labelled it. It would also imply that we had already understood the name. But then, how could a name arise in the first place independently of things? Rather, a name can only have its significance through its relationship to things In essence, then, naming is an originary occurrence: name, nameable and named occur t gether.

If this is so, if the thing comes into its being through the name, and the name is therefore not a description but a "saying-of-what-is", then by listening to the name - that is to say, by trying to enter into the experience in which it arises - we may come into a relationship with what is without fixing it (in the sense of defining it n terms of standards which are imposed upon it). We become freed for what is in its own freedom. It would be for this reason that Heidegger gives so much attention to a radical etymologizing on "key' words as a way of cueing us to possibilities of experience which have long since been forgotten as language has become increas ngly "worn out" in the service of wilful communication. In this way, through seeking to listen to what the word tells, thinking ceases to be an ordering and becomes from our point of view a waiting, and from the point of view of things a "call'.

Clearly much more needs to be said regarding this sort of approach to thinking, but what is really vital for Heidegger's enterprise is to establish a willingness to seriously call into question our present notions of thinking - to treat them as genuinely problemat c - and thus to be genuinely prepared to

acknowledge that thinking need not be what it is presently, and for the most part, taken to be, and indeed that it has not always been so taken In his discussion of a Parmenides fragment (Heidegger, M. 1954a, Part II Lecture IX) Heidegger tries to show how our current notion of thinking was distilled in the Roman ratio as reasoning through propositions, but that this distillation occurred as a restriction upon and covering over of a more original Greek notion in which thinking was experienced as a "letting-lie-before-us and taking-to-heart" which was of a non-conceptual and non-grasping character.

Let us try to explore a little further the possibilities of such a notion of thinking. It was suggested above that there is a necessary level of naming which is not a describing but a "sayingof-what-1s". But how is this to be understood and what of the possibility of 'mis-namings" which might lead us astray in a resolve to enter a more direct relationship with things? Further, is it supposed that through listening to what he name says we are to somehow re enter into the experience of the Ancients? And how are we to tell which names to listen to i.e how will we recognize "key words", and what will guide us in interpretation of them? We seem to require early assurances that solutions are forthcoming on issues of this kind before we can even begin to take seriously Heidegger's quest. Now, this is a very real problem, for, on some issues at least, it seems unlikely that we can receive such assurances as would be acceptable to the sort of thinking which seeks them. Demands for clearly defined criteria and concern for correctness derive from a notion of rigour which is prized by precisely that sort of thinking Heidegger is trying to overcome. Meditative thinking is to be qualitatively different from c lculative thinking, and it is therefore to be expected that the rigour to which it subjects itself will not accord with the rigour of calculative thinking. Heidegger makes the point in a number of places hat there is a fundamental discontinuity between t e two - as, f r example, in his remark that "science does not think" (1954a, Lecture I, also developed in Heidegger, M. 1952, 1977b) - and th t to enter meditative thinking will ultimately require a leap. However, there may be a number of considerations we can make which prepare the way towards this leap.

Let us return to the notion f originary naming as a sayingof-what-is rather than referring to any sort of description which implies some set of objective defining properties. Clearly a particular thing may keep its name while it, itself, changes and thus requires redescription. This would be clearly true of a develop ng organism. In this sense, then, the name need not fix the thing - or rather it need not completely fix it - for one might still maintain that it does fix it in certain respects through the criteria for the use of the name. This is clearly so for general names, but is perhaps less so for personal names, f r here the criteria of use derive wholly from the relationship of name to named. A name such as "John" is non-classificatory and nonspecificatory (in the generic sense). The name is given but does not impose an order on the named (though it may invite certain associat ns). Here, then, we would seem to have a sense in which a nami g might not delimit the thing, but just "says' it. H wever, this would still appear to be a labelling rather than an originary naming though in some circumstances uttering the name might n t involve fir tly representing the thing to oneself but may, f r example, c nsti ute ones recognition of it or an evocation of it ("John!')

Now to be sure, a pre-conception of the reference of the name is involved here, but perhaps we can dimly perceive some trace of originary naming, for in such experience of utterance of the name there seems to be an element of bringing something before ourse ves in its own terms. But the trace is faint, for representation is never far away and maybe the experience is parasitic on it. This remains in contrast to originary naming which says nothing that we need - or could - represent to ourselves, but brings something to stand forth so that it can be what it is by creating an open region for it. Thus, to refer back to the query raised earlier concerning the possibility of a "mis-naming' this would only be possible for that sort of naming which is a labelling, i.e. it has a pace only in the realm of representational thinking were truth seen as correctnes rather than a primal revealing

The re at on hip between these two kinds of truth is set out by Heidegger n On The Essence of Truth (1943), but might be usefully restated here in the following terms: in the naming of representational thinking a thing is characterized in a certain way by attributing cer ain properties to it such that the naming may be correct or incorrect depending upon whether the thing does or does not exh by these properties. But what of the thing itself, and these properties themselves? Does not such representational naming presup ose a prior naming (if it be granted that naming may have a truly originary function) which allowed the thing, and

the properties which are n w being attributed to it, t first stand f rth? This would mean that the naming of representational thinking which preoccupies us today is possible only through the h lding sway of a prior naming whose origins and nature we have largely forgotten.

Now conceivably it might still be objected that what we are really pointing towards here is a range of prior concepts - basic categories - in terms of which we classify and describe things, and that the question of a "prior naming" is really the que tion of what these concepts are. That is, to listen to originary name is really to engage in conceptual analysis because concepts are the primal units of meaning. From a Heideggarian standpoint a disposition to regard things in this way would be both interesting and wrong. It would be interesting as an example of how modern thinking is conditioned by another of those fundamental distinctions which stand at the beginning of Western thinking and which Heidegger's contemplative thinking attempts to overcome, viz., the distinction between essence and existence, where essence is thought as formgiving idea and thus ach eves a certain priority over existence. The objection will not do because it assumes precisely what is h ld to be at stake: that prior awareness of things which the origin of categories requires. For Heidegger, the disposition from which the objection arises is, in fact, an aspect f the selfensnarement of representational thinking: its nability to acknowledge that which a ready touches those who re called to th nk and to utterance, but which always remains unthought and unsaid through a withdraw l.

Here we seem to have some ink with another of the problems noted earlier: what will give meditative thinking a directi n if it claims to forego a pre-pecified goal? Now f c ur e in one sense meditative thinking has a goal, viz., a releasement t wards things in their essence - thus Heidegger's talk of "resolve" and thinking as an "undertaking'. But this is n t a g al in t e sense in which calculative thinking has a goal, for it is not preconceived (we cannot represent it to ourselves), but shows its f only as we move towards it. What does this mean? Merely th t instead of a clearly defined goal we must make do with some vague intuition to guide us? As if we really have a goal in the sense of calculative thinking, but we have not as yet taken the trouble to think it out carefully? Yes and no. Yes, in the sense that we must in some way, I think, make appeal to intuition, but no, f this is interpreted as a lazy substitute for clear thinking. On te contrary a thinking that waits is te most demanding sort f thinking there is, for if its goal cann t be pre specified it requires a level of sensitivity and alertness t poss ble signs on its way which are unknown to calculative th king.

Meditative thinking is not, then, a thinking which strays arbitrarily in any direction for lack f a clearly defined objective. It is guided by the way it is on, which is its resolve to be open to things. According to Heidegger when we cease to represent things to ourselves it will be "the silent c urse of the conversation that moves us'. But how are we to make a beginning on this conversation? It has already been noted that to seek clearly defined criteria here is both imposible and undesirable in that attempts to make such definitions will go against the spirit of

the undertaking. H wever, there are two sources of guidance for getting us underway: certain key words (as previously mentioned) and our own sense of place in Being. Med tative thinking will involve an intimate interplay between these two aspects, but I intend to try to come at this interplay through an initial focus on the significance of key words".

As calculative thinking, by its nature, closes itself off from the question of Being so meditative thinking attempts to think Being. This is its one essential and abiding characteristic, and the source of its rigour. Thus, Heidegger's remark: "The limitlessness of the same is the sharpest limit set to thinking." (Heidegger, M. 1954a, p. 50). It may begin this attempt by question ng concerning those words in which the experience of Being was conserved before calculative thinking assumed dominance and emptied them of this meaning. This means, in effect, an attempt to return to the beginning of Western thought, but not with the intention of seeking to somehow re-live the pre-Socratic experience of Being (which would be impossible). Rather, it is the attempt to re-think it from where we are now in order that we might forethink a new beginning. In this way we may genuinely begin to think about where we are now - the way we are on (which, for Heidegger, is the essence of techn logy (Heidegger, M. 1954b)) - and how it might be transcended.

It is important to stress that in accordance with the undertaking of the tep back to the unthought discussed earlier, in attempting to return to the beginning f We tern thought in this way we are:

- (a) necessarily conditioned by our starting point i.e. our present historical situation;
- (b) seeking to come nto a relationship with that which is holding sway in the Greek experience, such that we might become aware of other possibilities for experience and history than those which have been achieved so far (since history so far has been that of the progressive withdrawal of Being from thought).

To quote Heidegger, himself, on his approach to etymologizing:

"The mere identifying of old and often bsolete meanings of terms, the snatching up of these meanings with the aim of using them in some new way, leads to nothing if not to arbitrariness. What counts, rather, is for us, in reliance on the ealy meanings of a word and its changes, to catch sight of the realm pertaining to the matter in question into which the word speaks. What counts is to ponder that essential realm as the one in which the matter named by the word moves. Only in this way does the word speak, nd speak in the complex of meanings into which the matter that is named by it unfolds throughout the history of poetry and thought." (My emphasis) (Heidegger, M. 1977b)

Thus, this re-th'nking is to be a radical re-thinking which is not to be confused with a more refined organ sing of pre-Socratic ideas in terms of further, more abstract ideas for the sake of intellectual mastery. It is to be a genuine going back rather than a covert going forward within the parameters of existing thinking (e.g. as when Plato's forms become nterpreted as concepts, thinking as reason ng, etc.). As Heidegger puts 1t.

"The criterion of the unthought does not lead to the incorporation of what has been thought previously into still higher levels of development and systematisation surpassing it, but demands that the heritage of thought be liberated in respect of what still lies in reserve in its 'has been'." (Heidegger, M. 1949)

This means that re-thinking is to be a thinking of origins ie. of those originary powers that shape experience - and thus it is on the way to a concrete transcendence and not an abstract one. Only through such concrete transcendence could "what still lies in reserve" be set free, call forth from its present oblivion. (Thus, for Heidegger, 'Being' is not the most abstract of notions and the most empty, but the most concrete and most full. It is not generic but originary.) By listening to various pre-Socratic words and fragments of thought the attempt is made to interpret them in a way which enables them to disclose that which is originary in them. This requires a growing sensitivity to the Greek experience of reality (rather than some pre-determining assumption), but one necessarily arrived at from - and conditioned by - our own modern sensibility, the one vitalizing the ther. Here, then, we are reminded of the other aspect of the interplay: our own sense of Being.

The undertaking of re thinking key words remains possible for the modern only through his own relationship to Being manifest, for Heidegger, in his sense of alie ation from the possible through our sensing of the withdrawal of Being in our time from within the region of Being that man by his nature as thinker always occupies. The "silent course of the conversation" with key words receives orientation not by reference to clearly defineable criteria, but because it (we) are already within the region of Being and are touched by its 'destining'. Thus:

"....waiting upon something is based on our belonging in that upon which we wait" (Heidegger, M. 1969)

Man as thinker belongs to Being prior to everything else, "isness" being a presupposition of all thought and language - unacknowledged and unexamined in the case of calculative thinking the food of thou ht in the case of m d tative thinking. Man as thinker always already belongs to Being; he has yet to achieve an authentic relationship to it and thus realise his essence.

Heidegger attempts to illustrate the truth of this primordiality of Being and man's inauthentic relationship to it in a number of places, in particular in his treatment of the nature of identity. In *The Principle of Identity* (1957a) he shows how this notion which is absolutely fundamental to ny thinking is incapable of being adequately thought by traditional metaphysics

He argues that the usual statement of the principle of dentity as A - A s in fact the statement of the principle of equality which already assumes identity. The principle of identity i A is A, i.e., A i elf is the same with itself. Thus:

a the principle of identity really speaks of the Being of be ngs (how beings are in their presencing),

b it speaks of it as a unity, a belonging togetherness.

But the traditional way of thinking of unification, togetherness, thinks it as a co-ordination of eparate terms whose identity, therefore, we must already assume. We are thus brought to a dead end. To think the principle of identity through we have, therefore, to think it differently, i.e., properly thought, the principle of identity comes to be a spring away from traditional metaphy ics into another way of thinking - a radically different thinking which concretely transcends propositional articulation of separate pre-identified terms, and focuses rather on the phenomenon of the **belonging** f unity, togetherness, as that which is originary in it. This is to say that only a thinking which is released to the relationship of **be onging as relationship** will be adequate to the problem of identity.

Fr m the standpoint of this simple belonging, thinking man) and Bei g are seen as aspects of identity, that is, as determinable only from their mutual appropriation (which is in sharp c ntrast to the ay metaphysics has to think of identity as an aspect of Being. Thus, for He degger, traditional metaphysics - and all

calculative think ng - through its assumption of identity and yet its covering over of any way of adequately knowing dentity remains in an inauthentic relationsh p to that which is is source, i.e., that to which it truly belongs: the continuing but ingular event of appropriation f Being and man thinking).

From the standpoint of the event of appropriat n then, Heidegger believes it becomes possible to re-experience calculative think ng in a way that it can never experience itself. From this perspective it will be seen that the mutual belinging of man and Being - that which determines their mode of presencing - at present is a mutual "challenging enframing" (Heidegger, M 1954b). For Heidegger, this is man's identity in the modern age. But at the same time the possibility of being able to experience this from out of its origin opens up the possibility of another non-challenging and more originary kind of appropriation arising. This is the hope of meditative thinking.

APPENDIX TWO: Poetic thinking and personal authenticity

As c aracterised by the writers we have been considering, rational thinking achieves its rigour by the application of public rule-governed procedures to experience in terms of which it is thus organised and validated. In this way objectivity essentially becomes a function of agreed conventions - a function of the shared criteria for deciding how things are to be classified and what is to count as true. In contrast, it has been argued, the rigour of poetic thinking has a more demanding basis: the source of its discipline and objectivity is not an orthodoxy of this kind, but adequacy to the thing being revealed. This involves a unique subjective response, and thus, it will be suggested, in a certain sense a heightened sense of personal responsibility. As previously mentioned, the argument here is difficu t but it is important from the point of view of establishing the overall position. It revolves around the not on that genuine openness to things as they are in themselves, as against perceiving objects defined by categories, inv lves awareness of negation. I will now try to spell this out a little.

The man point is that to see something in one way, to reveal it on one occasion, is always at the expense of other ways of seeing it, of er possibilities of revealing. There are always sides of the thing to which we will not be attending, or are out of view. There are aspects that will always reman unknown and beyond our grasp but which are not any the less part of the thing itself. For example, and above all, its simple ability to stand there, to

exist. Thus openness to the thing itself, in its fullness, involves an apprehension of denial - a sense of the ambience of what is incipiently present but not revealed as such in our awareness of it. Only in this way can things have restored to them their inherent strangeness - which is essential to their own integrity. In this sense even the most familiar of things has its mysterious aspect.

We can sometimes experience something of this if we stare intently at an object for a period of time - say a flower. In such an experience the public criterion-referenced properties in terms of which we classify it and it can be known" as a defined object can fall away, become less dominant. And in its place a sense of the flower's own presence - standing forth - as something essentially inscrutable with a quality we cannot adequately articulate, can strike us and inspire us with a sense of wonderment: an awareness of what simply is - arising out of what is not. For much of the time, of course, dominated by the need for goal orientated action, such staring is a comparatively rare experience. We are too busy organizing things, and need for t e most part to see them as instances of everyday categories which can be routinely manipulated. In this way we come to live predominantly with objects rather than things.

Now such awareness of negation is precisely what lies at the kernel of personal responsibility: an awareness of what one has denied in what one has achieved For in a way that parallels the above, every achievement, too, is gained at the expense of other real possibilities - it involves the realization of certain options as

against others which could have been taken up but which were passed by It is only in the consciousness of such choice awareness f such negation - that responsibility arises and a sense of guilt c n be possible. In this ense, then, it is the same developed ense of finitude that comes into play in revealing the individual ty and particularity of things themselves as is being engendered in the self expression of individuals who are striving to live authentically in the existentialist sense. And thus, only true individuals can relate poetically, for the discipline and rigour of poetic awareness are rooted in this underlying sense of responsibility being applied towards the finitude of things in their present and particular standing out from what they are not. We could perceive, represent, create, things differently, but we are always involved in a limited selection of the possibilities that are actually open. This is part of the nature of things and our own essential f nitude in relation to them.

Now this claim concerning the relationship between a developed sense of our own finitude and our capacity to reveal the individuality of things themselves has broader implications. It suggests that the development of thinking in its deepest and fullest sense will indeed involve initiation into the essence of the human condition in the way advocated by existentialism. Human finitude is most poignantly expressed in human mortality. As long as we are living - as against being caught up in some state of mental limbo characterised by inauthenticity - we are also dying. Sense of fe, assertion - its felt urgency - is enabled by sense of death, den al. As poetry often tries to make explicit, joy in what is present occurs against the backcloth of sadness of what s past or

lost or cannot be, and vice versa. This characterises our situation way of revealing things, giving human and enables our awareness, receptiveness, and responsiveness, its own essential qual ty. An omn'potent god cannot experience things as humans do - cannot reveal things in the way humans do, nor share in their meaning the way humans do - because it lacks this sense of fin tude. There s no finality in its I fe - it has unlimited time and unlimited power to undo and re-do. Whatever meaning it is capable of experiencing, it is not of a kind intelligible to humans. Humans are individual sed by their sense of finitude - they are as individuals, as much in virtue of what they are not - what their individuality denies, negates - as in virtue of what their individuality positively expresses or enables. Awareness of finitude is not, then, awareness of nothing, but a remembrance of what is being forgotten when we sum things up in categories and attempt to order our lives and the world in terms of them

Now the important upshot of all the sist that fully fledged authentic thinking is not ego centric, but acknowledges the negation which pervades whole hearted human involvement. Respons ble choice and decision are still present in poetic thinking - are essential to it - but the sense of responsibility is not now simply of the kind emphasized by the notion of self-referencing. It is not self-conscious deliberation, but a tacit responsibility towards a revealing relationship with the thing itself. We live richly, a d think poe-ically, nsofar as we reveal things in their fullness. This means a responding to what is there in its arising from what is not, and a sense of wonder that things are. In this apprehension lies poetic thinking's sense of wholeness of the

word - its intuiti e sense of t e ground out of which things are and in which they are rooted - which is quite different from the discursive sense of interrelatedness conveyed through the imposition of webs of rationally constructed categories upon it.

BIBLIOGRAPHY

ADORNO, T. (1986) The Jargon of A thenticity, London, R u edge & Kegan Paul

ARONWITZ, S. & GIROUX, H. (1986) Educati n Under Siege, L nd n, R utledge & Kegan Paul.

AXLINE, V. (1966) In Search of Self, London, Gollancz.

BAILEY, C. H. (1983) Beyond the Present and the Particular A Theory of Liberal Education, London, Routledge & Kegan Pau

BAILEY, C. H. 1992) "Enterprise and L beral Education: A Reply to David Bridges" in *The Journal of Phi osophy of Education*, V 1. 26, No. 1.

BANTOCK, G H. (1952) Freedom and Authority in Educati n, London, Faber & Faber.

BARRETT, W (1978) "Heidegger and Modern Existentialism', in Magee, B., (ed)(1978) Men of Ideas, BBC.

BARROW, R (1987) "Skill Talk" n Journal of Philos p y of Education, Vol. 21, No 2.

BARROW, R. & WOODS, R. (1990) An Introdu tion to Philos hy of Education, London, Routledge.

BETTLEHEIM, B. (1976) The Use of Enchantment, Thames & Hudson.

BONNETT, M. (1978) "Authenticity nd Education" in The J urnal of Philosophy of Education, Vol. 12, 978.

BONNETT, M. (1983) "Education in a Destitute Time" in Journal of Phil sophy of Education, Vol. 17, No. 1.

BONNETT, M. (1986 "Personal Authenticity and Public Standards" in Cooper, D. (1986)

BONNETT, M. & DODDINGTON, C. (1991) "Primary Teaching: what has philosophy to offer?" in Lofthouse, B. (ed.) (1991)

BOTTERY, M. (1990) The Morality of the School, London, Cassell.

BRIDGES, D (1988 Education, Democracy and Discussion, University Press of America.

BRIDGES, D. (1992) Enterprise and Liberal Education", in *Journal* of *Philosophy of Education*, Vol. 26, No. 1.

BRUZINA, R. (1973) "He'degger on the Metaphor and Philosophy" in Murray, M. (ed.) (1978)

CASSIRER. E. (1946) Language and Myth, translated by Langer, S. K., New York, Harper.

CONNER, C. (1988) 'Learning styles and classroom practice" in Conner, C. (ed.) (1988).

CONNER, C. (ed.) (1 88) Topic and Thematic W rk in the Primary and Middle Years, Cambridge Institute of Educat n.

COOPER, D (ed.) (1986) Education, Values and Mind, London, Routledge & Kegan Paul.

DADDS, M. (1988) "Whose learning is it anyway? Concern about continuity and control in topic work" in Conner, C. (ed) (1988).

DEARDEN. R. F. (1967) Learning through disc very and learning through instruction" in Peters, R. S (ed.) (1967 The Concept of Education, London, Routledge & Kegan Paul.

DEARDEN, R.F., HIRST, P. H., and PETERS, R. S. (eds.) (1972) Education and the Development of Reason, London, Routledge & Kegan Paul.

DES (1988) Ta k Group on Assessment and Testing: A Rep rt, H.M.S.O.

DES (1989a) Scien e in the National Curriculum, H.M.S.O.

DES (1989b) Mathematics in the National Curriculum, H.M.S.O.

DEWEY, J. (1902) The Child and the Curriculum, reprinted in (1956) The Child and the Curriculum and the School and Society, London, University of Chicago Press.

DEWEY, J (1933) How We Think, revised ed tion, Boston, Heath.

DUNLOP, F (1984) The Education of Feeling and Emotion, London, George Allen & Unwin.

EGAN, K. (1990) Romantic Understanding, London, Routledge.

ELLIOTT, J., & ADELMAN, C. (1975) "Asp rations into reality' in Education 3-13, Vol 3, No. 2.

ELLIOTT, R. K. (1975) Education and human being in Brown S. C (ed.) (1975) Philos phers Discuss Education, Basing t ke, Macmillan.

FRASER, A. (1987) " A child-structured learning context" in Cambridge Journal of Education, Vol. 17, No. 3.

HAMPSHIRE, S., (1959) Thought and Action, London, Chatto & Windus.

HEIDEGGER, M (1927) Being and Time, translated by Macquarrie J., and Robinson, E., (1962) Oxford, Basil Blackwell.

HEIDEGGER, M. (1943) On the essence of truth" n Krel, D. F. ed) (1978 Martin Heidegger Basic Writings London, Routledge & Kegan Paul.

HEIDEGGER, M, (1949) "Letter on Humanism" translated by Lohner, E. in *Philosophy in the Twentieth Century*, edited by Barrett, W., & Aken, H D. 1962) New York, Random H use

HEIDEGGER, M. (1952) "The Age of the World Picture' in Heidegger, M. (1977a)

HEIDEGGER, M., (1954a) What Is Called Thinking? translated by Glenn Gray, J., (1968), New York, Harper & Row.

HEIDEGGER, M, (1954b) "The Question C ncern'ng Technology' in Heidegger, M. (1977a).

HEIDEGGER, M, (1957a) The principle of identity" in Heidegger, M. (1969a)

HEIDEGGER, M., (1957b) "The onto-theo-logical constitution of metaphysics' in Heidegger, M. (1969a).

HEIDEGGER, M. (1969a) *Identity and Difference*, translated by Stambaugh, J., New York, Harper & Row.

HEIDEGGER, M. (1969b) Discourse on Thinking, translated by Ander on, J. M and Freund, E. H., New York, Harper & Row.

HEIDEGGER, M (1971) Poetry, Language Thought, translated by Hofstadter, A., New york, Harper & Row.

HEIDEGGER, M (1977a) The Question C ncerning Technology and Other Es ays, tr nslated by Lovitt, W., New York, Harper & Row.

HEIDEGGER, M, (1977) 'Science and refliction in Heidegger, M, (1977a).

HIRST, P. H. & PETERS, R. S. (1972 The Logic of Edu atton, Lond n, Routledge & Kegan Paul.

HIRST, P. H. (1965) "Liberal education and the nature f knowledge" in Archambault, R. D. (1965) Phil phical Analy is and Edu ati n, London, Routledge & Kegan Paul

HOLT, J. (1990) H w Children Fail, Second Editi, Harmondsworth, Penguin.

IBSEN, H. (1866) Brand, translated by Meyer, M (1973) London, Rupert Hart-Davis

KIERKEGAARD, S. (1970) Fear and Trembling nd Sickness Unto Death, (translated by Lowrie, W.) Princetown Un versity Press.

KREUGER (1926) 'The Essence of Feeling' in Arn ld, M (1968) The Nature of Emotion, Harmondsworth, Penguin.

LAWRENCE, D. H. (1923) "Benjamin Frank n' reprinted in Williams, J & R. (eds.) (1973).

LAWRENCE, D H. (1936) "Education of the people" in J. & R. Williams, (eds.) (1973)

LOFTHOUSE, B (ed.) (1991) The Study of Primary Educati n A Source Book Volume One, Basingstoke Falmer Pess

MANLEY HOPKINS, G. (1979) The Major Poems edited by Davies, W., London, J. M. Dent & Sons

MATTHEWS, G. (1980) Philosophy and the You g Child, Harvard University Press.

MILL, J S. (1859) "On Liberty", reprinted in *Utilitarianism*, Liberty, and Representative Government (971) London, Everyman's Library, J. M. Dent.

MURRAY, M (1978) Heidegger and M dern Philiosophy, Yale University Press.

MURRIS, M. (1992) Teaching Philosophy with Picture Books, London, Infonet.

N.C.C. (1989) Curriculum Guidance One. A Framework for the Primary Curri ulum.

NIETZSCHE, F. (1981) The Twilight of the Idols, translated by Hollingdale, R. J., Harmondsworth, Penguin.

OAKESHOTT, M. (1972) "Educat on: the engagement and its frustration" in Dearden, R. F. et al (eds.) (1972).

PARLETT, M. & HAMILTON, D. (1976) 'Evaluation as Illumination" in Tawney, D. (ed.) Curriculum Evaluati n Today: Trends and Implications, London, Macm llan.

PETERS, R. S. (1966) Ethics and Edu ation, London, Allen & Unwin.

PETERS, R S. (1970) "The education of the emotions" in Dearden, R. F. et al (eds.) (1972).

PETERS, R S. (1972) "Reason and Passion', in Dearden, R. F. et al (eds.) (1972).

PETERS, R. S. (1974) 'Subjectivity and Standards" in Peters, R. S. (1974) Psy hology and Ethical Development, London, Allen & Unwin.

POLE, D. 1972) "The concept of reason" in Dearden, R. F. et al (eds)(1972)

REVELL, R. 1987) "Travelling Baedeker-less" in Cambridge Journal Of Edu ation, Vol. 17, No. 3.

REVELL, R (1988) "Where Goldie Sleeps" in Conner, C. (ed.) (1988).

ROBINS, K. & WEBSTER, F. (1989) The Technical Fix, London, Macmillan.

ROUSSEAU, J. J. 1762) Emile Edited and translated in Boyd, W. (1975) Emile for Today. The Emile of Jean Jaques Rousseau, London, Heinemann

RYLE, G. (1949) The Concept of Mind, London, Hutchins n.

SARTRE, J-P. (1957) Being and Nothingness, (translated by Barnes, H.), London, Methuen.

SARTRE, J-P. (1965) Literature and Existentialism, Third Edition, New York, Citadel Press.

SCHILLER, C. (1946) "The assessment of the attainment of young children' in Schiller, C. (1979) Christian Schiller: In His Own Words, National Association for Primary Education.

SMITH, R. (1987) Skills the middle way" in Journal of Philosophy of Education, Vol. 21, No. 2.

STANDISH, P. (1992) Beyond the Self, Aldersh t, Avebury.

STENHOUSE, L (1971) "The Humanities Curriculum Project: the rationale" in *Theory Into Practice*, Vol. 10, No. 3.

STENHOUSE, L. (1975) Introduction to Curriculum Research and Development, London, Heinemann.

STYLES, M., BEARNE, E., & WATSON, V. (eds.) (1992) After Alice, London, Cassell.

VICK, G. (1971) "Heidegger's Linguistic Rehabilitat on of of Parmenides "Being' " reprinted in Murray, M. (1978).

WATSON, V (1992) "Irresp nsible writers and responsible readers', in Styles M. et al (eds.) (1992).

WHITE, J. P. (1973) Towards a Compulsory Curriculum, London, Routl dge & Kegan Paul.

WHITE, J. P. (1982) The Aims of Education Restated, London, Routledge & Kegan Paul.

WHITEHEAD, A. N. (1932) "The Aims of Education" repr nted in *The Aims of Education and Other Essays*, (1966) London, Ernest Benn.

WILLIAMS, J. & R. (eds.) (1973) D. H. Lawrence on Education, Harm ndsworth, Penguin.

WITTGENSTEIN, L. (1958) Philosophical Investigations, Oxford, Basil Blackwell.

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Journal of Philosophy of Education, VoL 17, No. 1, 1983 21 Michael Bonnett Education in a Destitute Time (A Heideggarian approach to the problem of education in the age of modem technology)

Journal of Philosophy of Education, Vol. 12, 1978 51 Michael Bonnett Authenticity and Education

Personal authenticity and public standards: towards the transcendence of a dualism Michael Bonnett

























































