

SOME UNEXPECTED IMPLICATIONS OF RESEARCH INTO THE NATURE,
DEVELOPMENT AND ASSESSMENT OF HUMAN RESOURCES

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In the course of research carried out over the past 30 years, my colleagues and I have tried to help clarify the goals of general education, the ways they are to be achieved, and how progress toward them is to be assessed.⁽²⁾

Our work supports those who have argued that the main goals of education include fostering qualities like initiative, problem-solving ability, the ability to work with others, the ability to communicate, and the ability to understand — and influence — organisations and society.⁽³⁾

The question which then arises is: "Why are these goals so widely neglected by schools?"

We have shown that the answer is complex and involves processes which are deep seated and non-obvious.⁽⁴⁾ Only two components of the explanation will be discussed here. The first is that there is little explicit, formal, understanding of the psychological nature of these qualities, how they are to be fostered, or how they are to be assessed. The second, related, set of contributory processes hinge on our finding that, when the nature of qualities like those mentioned above is analysed, it turns out that these qualities are, psychologically speaking, value-laden motivational dispositions. This creates a host of dilemmas and other problems for those who wish to foster or assess them.

Our conclusion that these qualities are to be conceptualised as value-laden motivational dispositions is based on observations like the following. To take successful initiatives those concerned have to devote a great deal of time and effort to the activity. They have to build up, and bring to bear, a unique combination of up-to-date, specialist, knowledge. They have to prise relevant, often barely conceptualised, knowledge out of other people. They have to initiate "experimental" action, monitor the effects of that action, and learn from those effects more about the problem they are trying to tackle and the effectiveness of the strategies they are using. They have to wake up at night in an effort to seize on flickering glimmerings of understanding on the fringe of consciousness and bring them to the centre of attention so that they become fully conscious and usable. They have to persuade other people to help.

These activities are not only self-motivated; persistence and determination are also required. No one is going to engage in such difficult, demanding, and frustrating activities unless they care very much indeed about the activity they are undertaking.

It should also be noted that this cluster of activities is not factorially internally consistent. On the contrary, its components are cumulative and mutually supportive.

I have elsewhere ⁽⁵⁾ elaborated a psychometric model which takes these observations on board. Here it is sufficient to note that, if we are interested in assessing such qualities, we must first find out what people care about - the kinds of activities they *value* and then *how many* components of effective behaviour like those just listed they display whilst undertaking those activities.

Two corollaries of these observations are of particular importance:

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(1) The components of competence which contribute to effective behaviour cannot be observed *except whilst those concerned are undertaking activities they care about*. It follows that statements about people's 'problem solving ability', 'leadership' and other qualities only have meaning in the context of information on the particular situation in which the observations were made and whether that situation tapped their values. (One too often encounters statements to the effect that so—and—so lacks, for example, 'the ability to think clearly about complex problems' when the correct observation to be made was that s/he did not value an activity which someone else thought s/he ought to value). To be meaningful, therefore, such statements must include information on whether the person being observed values the activity being undertaken. In other words, statements about peoples' 'abilities' *must requisitely include statements about the kinds of activity they value, the context in which the observations were made, and whether that situation tapped the values of the person being assessed*.⁽⁶⁾

(2) All important human qualities involve a wide range of inter—penetrating, cumulative and substitutable, cognitive, affective and conative⁽⁷⁾ processes. The interdependent, indeed inter—penetrating, nature of these needs to be underlined. The cognitive components, for example, include the ability to analyse and find better ways of thinking about things. But the ability to evolve new ways of thinking itself involves such things as sensitivity to one's feelings (affective components), determination and persistence (conative components), the ability to persuade other people to share relevant information, and the ability to deploy 'experimental' strategies of the kind mentioned above in order to learn more about the situation and the strategies being used.⁽⁸⁾

We have also studied the way in which effective parents, teachers, and managers promote the development of these qualities. In essence, all three groups *facilitate growth* by creating *developmental environments*.⁽⁹⁾

Effective mentors study the values of their children, pupils, or subordinates and then create situations in which those concerned undertake activities which are important to them. In the course of carrying out these activities, the 'trainees' practice — and thereby develop — the cognitive, affective and conative components of the qualities mentioned above — and others like them. Effective mentors also make overt many of the (normally private) thoughts and feelings which contribute to their own effectiveness. In this way they portray the *psychological* components of competence in ways which their 'students' can copy. They also both try to place their pupils, trainees or subordinates with others who share their values so that they in turn will portray components of competence which it is important for the 'trainee' to develop in the context of joint activities which both care about. Finally, effective mentors tell pertinent stories (Jackson⁽¹⁰⁾ underlines the parable—like nature of many of these), and introduce their pupils to relevant literature (or the 'case histories' of Management Education programmes), which portray effective behaviour in action and illustrate the consequences of pursuing alternative values and deploying (or not) significant competencies. In these ways they demonstrate the overt and the psychological components of relevant competencies, help their children or trainees to clarify what they are good at and what motivates them, influence their values, and help them to resolve value—conflicts.⁽¹¹⁾

It has already been indicated that there are a large number of barriers to the diffusion of such

highly—structured, value—laden, 'progressive' education through the educational system. The single most serious of these will now be discussed.

Our research has shown that what happens in schools is mainly determined, not by the priorities of pupils, teachers, parents, ministers of education of anyone else, but by what is assessed in the certification and placement process. One key to enabling schools to achieve their main goals therefore involves credentialling high level competencies.

Yet the thought of explicitly assessing value—based motivational dispositions — particularly for summative purposes — immediately raises a host of moral dilemmas.

As psychologists, we have a responsibility to help society think them through.

Unless these qualities are assessed, our society will continue to squander vast resources on demoralised teachers, indifferent 'pupils' and a dysfunctional 'educational' system which does little more than provide society with a means of legitimising the rationing of privilege.⁽¹²⁾ The problem cannot be avoided by refusing to acknowledge it: schools will still influence pupils' values and political beliefs, and people will still try to assess these qualities — but they will continue to do so by selecting ex—'public school' pupils or by obtaining 'off—the—record' assessments (which are based on chance (and highly unreliable) observations and interpretations of the behaviour of those being assessed — and which give those concerned no opportunity for redress). Failure to tackle the problem also has consequences for society as a whole: for example, society will continue to promote a disproportionate number of the *wrong* people — i.e. highly self—interested people who destroy their organisations and society in their quest for personal advancement — into senior management positions.⁽¹³⁾

To me, the moral position therefore seems fairly clear: it is in the best interests of individuals, organisations, and society, for us to develop better ways of assessing value—laden motivational dispositions and to encourage their use in the certification and placement process. But we must ensure that their use is set in the context of open information on what is going on and research into the social and personal consequences of people, both individually and collectively, being willing and able to undertake different kinds of activity.

Notes

1. I am indebted to my wife for assistance in writing this Note.
2. Raven 1977, 1984, 1988, Raven, Johnstone and Varley 1985.
3. DeLandsheere 1977, Dewey 1899, Flanagan 1978, HMI 1978, Kilpatrick 1919, MacBeath et al 1981, MSC 1984, 1985, 1988; Munn 1977; Parker 1894, Plowden 1966, SED 1965.
4. An article (Raven 1990) which summarises these various processes will shortly be published. However, a less complete account is already available in Raven 1989b.
5. For fuller discussions of the nature of, and the psychometric model required to assess, high level competencies see Raven 1984 and Raven 1988.
6. This does not, however, mean that, as writers like Greena (1989) and Brown et al (1989) suggest, these abilities do not generalise across different situations and cannot be observed in them. The fact that copper looks very different when combined with oxygen alone compared with when combined also with sulphur does not mean that it ceases to be copper. What it does mean is that people will not display these abilities unless they value the activity that they are engaged in. One of the clearest demonstrations of the connection between 'problem solving ability' and values has been provided by Maistriaux (1959) but see also Raven (1987).

7. The conative components are those which involve striving, will, determination and persistence.
8. Note that it is a mistake to describe such processes as 'meta—cognitive'. The term 'introverted awareness' might be more appropriate.
9. Raven 1980, 1984, 1989a; Raven and Dolphin 1978; Raven, Johnstone and Varley 1985; Jackson 1986, Klemm et al 1977; Schon 1983, Sigel and McGillicuddy 1984, Winter et al 1981.
10. Jackson 1986.
11. See Jackson 1986; McClelland 1965; Winter et al 1981 and Raven 1977, 1984, 1989a & b for a discussion of the importance of the value—clarification component.
12. Jencks et al 1973.
13. Hope 1985.

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The work of John Raven and his colleagues which this short paper refers to is one of the very few empirical attempts to demonstrate what commonsense and experience suggest must be the case, namely that the level of any performance is fundamentally affected by the attitude of the performer towards the task in hand. Or, to reiterate the argument in Raven's words 'statements about people's 'abilities' must requisitely include statements about the kinds of activity they value, the context in which the observations were made and whether that situation tapped the values of the person being assessed'.

This seemingly obvious point is consistently ignored by those concerned with testing. The affective and the conative have long been regarded as 'out of bounds' as far as educational measurement is concerned — perhaps because they 'are apparently much more ephemeral and transitory'; perhaps because, as Raven suggests, we fear to enter this particular secret garden as far as the curriculum is concerned because questions of value and attitude in education relate closely to fears that education will be used to promote indoctrination and the domination of particular norms and values. We thus have two separate issues to address. On the one hand, what it is legitimate and desirable to include in the curriculum itself; on the other, what it is legitimate and desirable to assess. Although these two issues are closely related, there are many instances of social and personal qualities and values which are included as curricular goals but which are not perceived as a legitimate subject for assessment. The price of neglecting either or both of these elements is, as Raven suggests, a shortage in society as a whole of vital work—related skills and a tendency to promote people with inappropriate values.

That this is so, is well demonstrated by the current political and industrial preoccupation with rectifying the situation through the promotion and associated certification of certain so called 'core skills'. Thus, 'problem solving', 'communication', 'using technology', 'working with others', 'understanding the world of work', 'effective personal and interpersonal skills' and 'dealing with change', figure as part of current Government proposals to broaden the general capacities of young people through their inclusion in both curriculum and assessment arrangements. Raven, however, is likely to be far from happy about the way in which it is currently proposed that this should be done. Units of competence, separately accredited in relation to courses in any one of the above areas imply that values, attitudes and skills can exist in some absolute form divorced from any particular context. Raven, by contrast, argues that the ability to solve problems, for example, like any other ability, is strongly affected by the value placed by the individual on the need to solve the problem — whether they see some point in so doing. In this view, a skill can never be an abstract possession. It can only be a blend of the application of particular capacities in a context which itself produces conative and affective factors which are also an intrinsic part of the capacity to act in any given situation.

Raven concludes in his last paragraph that an understand of this reality should prompt us to explore new modes of assessment and certification. To a considerable extent his point has already been taken up in the very substantial development work associated with 'Records of Achievement' in recent years. In this approach to assessment both formative and summative, the emphasis is on broadening the focus for both curriculum and assessment to include among

other things, some statement of the student's own values, experiences and broadly—based achievements. The successful growth of this initiative in recent years is itself testimony to the validity of Raven's argument. The fact that recent Government policy documents in England and Wales at least may be read as a weakening of the commitment to bring in such an approach to certification is a reflection of just how deeply entrenched traditional taboos about curriculum and assessment really are. Until these can be shown up as the white elephants they really are, Raven's perspective is likely to remain largely a theoretical argument.

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To a great extent one has to agree with John Raven's basic assumption that the classroom task system, or curriculum, is assessment driven. The National Curriculum assessment programme testifies to this as does the work of Doyle (1986) and Dockrell (1987) among others. It is also tempting to agree that had psychology delivered ways of assessing the qualities and skills outlined by Raven, schools may well be assessing these areas and that therefore psychology is at fault for not meeting the challenge. In the course of this response I would like to explore whether psychology was ever given that challenge and whether that lack of challenge has indeed contributed to the limited, fragmented form of psychology Raven criticises.

When we examine the qualities he lists it is possible to argue that to an extent, they have been tackled by psychology, but have not always been applied within education. When application has not been made it may be due more to the purposes of schooling than weaknesses within explanatory frameworks supplied by psychology.

The external assessment of initiative raises interesting issues. In Taylor's (1977) terms, external evaluation of agentic action may disempower the agent. Taylor argues that to be truly agentic one should not only be responsible for taking action towards goals but also for evaluating the extent to which those goals have been reached. To depend on external evaluations of effectiveness, whether these are focused on as process or outcome, leads the actor to dependency and hence reduces the likelihood of future initiative taking.

Problem solving, when viewed as learning strategies, has been tackled by psychology. Nisbet and Shucksmith (1986) is a teacher—friendly example of this work. While developments within the National Curriculum particularly within the fields of science and technology suggest that problem solving is assessable. Similarly the Statutory Orders for English lead teachers into assessing communication skills. The Assessment of Performance Unit has also contributed to research into both these areas (A.P.U. 1987 and 1988)

The assessment of the ability to work with others has yet to be addressed successfully within education. Problems markedly obtain in assessing collaborative work in GCSE music and joint dissertation work in Higher Education. Given that social and clinical psychology have much to offer educational psychology in the understanding of groups, the problem may lie in the fact that education has not defined its goals in this area with sufficient clarity and not made appropriate demands of psychology.

With the exception perhaps of problem solving and communication skills, the qualities outlined

by Raven may not represent what those who fund educational training and provision consider to be the goals of schooling. Examples abound of those who would argue against Raven: Apple and King (1977), Willis (1977) Walkerdine (1984).

Within the model of schooling as a method of social control, assessment has been used to ensure the effectiveness of that control whether it is through the surveillance of the ever-observant primary school teacher or through the prediction and hence control afforded by e.g. I.Q. testing. What the goals of education outlined by John Raven have in common is that they empower the individual, regrettably it may be the case that neither schooling as it exists nor assessment by others can achieve this end.

I agree with Raven that more psychologically based research is necessary in the areas he outlines. The current dearth, however, may be in part due to the dualistic inheritance of a discipline which has encouraged the fragmentation of the person by those academic psychologists to whom it appears that Raven is appealing. It may however, also be the case that this dualism is also underpinning the purposes of schooling. Aspects of agentic selfhood are not valued by teachers (Fontana and Edwards, 1985) whose primary needs are control of children. A consequence of this is a lack of the research funding necessary to develop the understanding and assessment techniques required by Raven. We cannot forget that psychology itself is socially constructed within the affordances available to it.

The assessment of children on activities that they value is, of course, laudable, and entirely in accord with the emphasis within the report of the Task Group on Assessment and Testing (D.E.S. 1988), that assessment should capture the child's optimal performance on task. The fact that some tasks are valued by children implies that the child has some mastery and is moving from novice to expert as she or he recognises how the task or topic connects with other areas of her or his own wider value system. But, if we accept the Vygotskian view of education as the mediation of a culture, the task of education is to induct children into the category or value system of their social world. Like it or not, one purpose of education is to encourage children to value what the well adapted citizen should value. One element of assessment within this framework must be to gauge the extent to which the child has adopted that category or value system.

John Raven highlights the major tension within education: maintaining the balance between independence of thought and action while being inducted through a specific curriculum into amenable citizenship. I agree that the mentorship model he offers may be a solution. It has a fine pedigree within the developmental psychology literature and provides the ideal mutually empowering model for teaching and learning (Edwards 1988). Nevertheless, I am not sure that the problems of assessment are those that Raven seems to be indicating. In developmental terms the ideal outcome of the type of mentorship he describes is the autonomous actor who should be responsible for assessing his or her own performance, in the sense that the aim of care givers in early childhood is to produce an independent and responsible child. Jointly controlled profiles may be one answer to this assessment problem. Assessment which disempowers the assessed is not.

While I agree with John Raven that as psychologists we should be developing ways of assessing the motivational dispositions he discusses I am not so sure that the answer lies as much in

isolating and fragmenting these, but in recognising that we are discussing actions and processes which may only need to be exercised through effective negotiation of goals and self evaluations to demonstrate that they exist. It may indeed be timely for psychology as a discipline to exhibit initiative, problem solving and communication skills and tackle bravely the fragmentation issue which lies at the root of Raven's paper. Should that occur we can be certain that we psychologists would want to be the first to pass judgement.

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Whilst sympathetic to some of the points raised by Raven in his target article, I am not convinced that his central argument is sufficiently clear to invite either agreement or disagreement.

Raven argues by implication that school education tends to focus on the encouragement and assessment of hypothetical cognitive competences such as 'clarity of thought' and so on. He rightly suggests that these supposed competences cannot be assessed without reference to situational factors and to motivational and emotional processes within the individual. Performance on any test of competence is not simply a function of some internal ability but also of the values/interests of the individual and of their assessment of the overall context. The history of Piagetian testing establishes exactly this point in the field of cognitive development (e.g. Light and Perret—Clermont 1989). There can be no unchallengeable diagnostic for a cognitive competence. Indeed, one would want to add 'appropriate previous experiences' to the list of factors determining the outcome of any performance test.

Thus far, agreement with Raven's position is not difficult. The next steps in the argument are, however, both less clearly outlined and less tempting to follow. Raven proposes that education should be concerned not so much with the development of supposed cognitive competences as with qualities like initiative, the ability to work with others, and so forth, which he refers to as value—based motivational dispositions, or else as high level competences. While acknowledging the moral difficulties involved, he urges the development of methods for assessing qualities of this sort. There seems, however, to be a number of problematic issues connected with this idea. First, assessment of these qualities is likely to be open to exactly the same objections that arise in connection with 'purely cognitive' competences. As with clear thinking, initiative and co—operation are likely to be exhibited only within the context of a valued activity; they, too, will depend on self—confidence, perceived locus of control, and so forth. Secondly, the notion of a valued activity calls for closer scrutiny. An activity may have intrinsic value for an individual who finds it worthwhile or enjoyable in itself. Schools already seek to promote valued activities in terms of making subject matter relevant to children's normal experience. But an activity may also have extrinsic value for an individual; it may carry peer recognition, or not. The problem is that a task which a particular child might value highly out of school is not necessarily so valued within the school context.

The value of school activities to the individual child is closely bound up with the value which significant others place upon education in general, it is not a simple function of tasks given in school.

Thirdly, Raven's argument that what happens in school is mainly a function of what is assessed seems to ignore the role of the hidden curriculum, . Much of what happens — and is learnt — in school may be only indirectly related to what is assessed. Attitudes to assessment itself are part of the hidden curriculum, as implied in the second point above.

The problems of setting curricula that appeal to educators, parents, pupils, employers and politicians alike are legion and cannot be tackled here. What is not clear, however, is that the way forward consists in developing new kinds of assessment tests, as advocated by Raven, rather than in trying to raise the value placed on education by the members of society as a whole.

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AMBIGUITIES IN TEACHING AND PEDAGOGY IN SCHOOLING

John Raven's considerable research and understanding into the (lack of) role of human resources in education provides much food for thought, but an ambiguity of response. There would be very few teachers and researchers in education who disagree with the outlined human resources approach to education. The current climate of education, while under—resourced and

underfunded, still has the pupil's development at heart and supposedly has a plethora of (developmentally qualified and practical) curricula with which teachers and schools are expected to work. But being pupil centred and developmentally orientated does not guarantee that pupils will be in the position to use their thinking skills to any advantage in schooling. Raven's model appears to call for a new curriculum subject (with examinations, etc) concerned with general thinking and problem solving skills. Before agreeing to such a proposal, though, we should consider an even more basic approach.

Classroom research, especially in primary schools, attests to two divergent findings: 1. that the grouping and organisational structure of the classroom conflict with and hinder the learning process from taking place (in criticism of groupings, see Galton, Simon & Croll, 1980; in criticism of individualisation see Bennett, Desforges, Cockburn & Wilkinson, 1984); and 2. that positive cognitive achievements can be attained through particular experimental groupings of pupils and appropriate task designation that accounts for the social developmental context of the classroom (see dyadic pairings explored by Kutnick & Thomas, 1989; and models of co—operative learning researched by Slavin, 1983). From these findings we note that pupils are very often placed in some form of grouping in the classroom, that these groups (unless experimentally structured) do not generally enhance the learning potential of pupils, and that a pedagogy enshrined in schooling should account for the type of learning task being undertaken in conjunction with a most appropriate pupil grouping.

In posing the establishment of a pedagogy of groups for the classroom we come to one area of critique not considered by Raven, yet there is some useful support in the psychological and educational literature. The critique refers to the 'developmental' considerations that are often stated as being designed into many of our modern curricula. These developmental considerations tend to present a model of the child in a series of stages, and it is the teacher's brief to match the stage of the pupil to an appropriately advanced level of curriculum. This individualised interpretation of development (and classroom learning) both misconstrues developmental theory and places the teacher in a nearly impossible position to promote learning. Misconstrual of developmental theory sees only the individual as the focus of the dynamic of development when early Piagetian theory (1982, 1932) and recent research (see Bearison, Magzamen & Filardo 1986) discusses and describes socio—cognitive conflict (between peers) as the basis for development. Curiously, this social approach to learning and development has been identified by sociologists of education as discussed in terms of argumentation (Pollard & Tann, 1987) and discourse (Edwards and Mercer, 1988). In parallel, the individualised classroom creates problems for the teacher and learner (as described by Bennett et al, 1984) in that it places pressures on the teacher to simultaneously diagnose the correct stage of development of the child, make an appropriate curriculum level match, provide corrections and feedback, and answer questions. In being the focus of pupil attention, long queues tend to form around the teacher and learning support quickly becomes a classroom management operation.

Thus curriculum design and classroom operation of 'developmental' curricula have conspired against the social context of the classroom and the type of pupil—pupil interactions that would best promote development.

The introduction of a pedagogy for grouping argument may appear to have no bearing on Raven's argument for a problem solving, motivational, human resources approach to education

(which necessitates the development of a new and testable curriculum, for thinking and understanding). Rather, it requires curriculum planners and teachers (who implement the curriculum) to think of a grouping pedagogy that would best enhance the expected development of that day's lesson or topic. In using the interactional potential of the pupils in the classroom by structuring the appropriate group and task assignment, the probability of using the thinking and problem solving interpersonal skills that Raven recommends may be made to take place within the existing curriculum. To start the ball rolling for a grouping pedagogy, we could suggest that: dyads may be a more appropriate grouping for cognitive enhancement exercises (see Kutnick & Thomas 1989 and Light & Glachan 1985); that groups of four to six pupils be used for application and synthesis exercises (from Slavin's co-operative learning model, 1983); and, perhaps that individuation be used for reinforcement strategies. As the reader will see, some of these recommendations are based on research evidence and others are based on speculation. Hopefully, future research will help to provide a clearer for us and the school.

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ALL INTERACTIONISTS NOW?

John Raven's article says a lot in a short space. Its two major, interlinked themes seem to me to be the general interactionist stance and the assessment focus. I will concentrate my comments on these.

(i) I warmly welcome the *interactive conception* apparently informing all levels of what John has to say. Interactive approaches have by now an established, even venerable parentage in psychology (Cronbach, 1957, 1975; Eysenck, 1968, Lewin 1951).

Some writers have been preaching them in educational psychology for quite some time (e.g. Hunt & Sullivan, 1974; Tomlinson, 1981, 1985), whilst certain well-known British workers have claimed the label more recently (e.g. Entwistle, 1987; Wheldall & Glynn, 1989).

Of course, terms like interaction and interactive can have a range of specific usages and applications, but (pace Wittgenstein) I have in mind a core general meaning. Namely, an interactive conception, theory, paradigm, approach proposes that: (a) a number of elements need to be taken into account within the topic of interest and, crucially, (b) their interplay rather than simply their aggregation needs consideration if one is to understand the process in question

One of the major forms of psychological interactionism is the person—environment interaction approach, stressing at its broadest the interplay of person and situation in influencing psychological, including behaviour and learning achievement. In the educational field this can be seen at a general level in the aptitude—treatment interaction (ATI) developments of Cronbach and his colleagues (cf. Corno & Snow 1986) and more recently and at the level of the teaching act in the Vygotskian idea of assisted practice, evident in work such as that of Gallimore and his group (Gallimore et al 1989).

At the level of intra—person psychological processes, current theory stresses the interaction of components and subprocesses to explain the complexity and potential flexibility of, for instance, human cognition (cf. Claxton, 1988, Gellatly 1987). The role of value and affect in such processes is something cognitive psychology has only recently begun to address seriously (cf. Brewin, 1988, Eysenck, 1984) a development that might have been arrived at earlier if more notice had been taken of evidence from the applied field, such as John Raven offers, of the interplay of value in the development and enactment of competence.

Why do I welcome such interactionism in educational psychology? Because, in the first place, of the varying sorts of evidence for its importance. We could see this as educational psychology catching up with well-grounded insights which may add to our capacity to illuminate the messy complexities of real classrooms. It is also welcome because it enables practitioners such as teachers to see more easily the relevance of formal theory and systematic research. The need to take into account an interplay of factors has surely long been obvious to any reflective practitioner of teaching. Anything simpler from formal psychological theory would seem (as it surely has) way behind common sense notions. Put positively, an interactive framework has more chance of being taken seriously by professionals (though admittedly this statement is itself likely to need some qualification e.g. by reference to the cognitive complexity of the audience!)

(ii) Whilst *assessment* was for too long the dominant concern in British educational psychology to the detriment of concern with the teaching and learning *process*, its importance in education cannot be denied. In principle, education is a purposeful endeavour, therefore assessment of educational achievement is central in various senses. In practice, as John Raven points out, *de facto* payoffs drive the participants: an outcome that isn't assessed doesn't function as a *de facto* payoff.

I found that to begin to get to grips with what he is saying about assessment I needed to go back to his 1988 paper in Black & Dockrell's collection. His viewpoint on the assessment consequences of the interaction of value and competence is complex and raises far more issues than

can even be referred to here. Staying general, therefore, in some ways one might regard his views as Utopian, given their scale and the background of traditional psychometric practice and educational—academic preferences. However, unexpressed ideals are still less likely to become reality.

Such assessment indeed raises, as he says, 'a host of moral issues' (not to mention technical problems). These apart, there are also 'motivational tasks', insofar as the sorts of committed, flexible competence John Raven refers to are agreed on widely as desirable educational aims, at least in principle. Thus, a first task in the current situation would be (have been) to get the policy makers e.g. the National Curriculum Council, to set out the sorts of aims being called for.

The next task would be to further development and inclusion of assessment procedures equal to the tapping of such competences, something whose technical difficulty and resource demands (e.g. teacher classroom assessment and the INSET for it) are likely to act as considerable deterrents. This is therefore a rather large, immediate issue. Teacher interest in those values and activities that will develop and demonstrate the competences John Raven is promoting will only be furthered and what we are learning about developmental environments will only be applied, as he says, if there is such payoff. In other words, insofar as there is a likelihood, with the introduction of the NC, of teaching to the test, it needs to be a positive development. That is, teaching is improved by teaching to a worthwhile test of important competence, rather than teaching being pulled down because lack of ingenuity or resources denied us adequate assessment forms. But that raises, as does John Raven's article as a whole, as well as in its various parts, a host of sociological and policy—related issues on which others are better qualified to comment.

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SOME UNINTENDED CONSEQUENCES OF THE ASSESSMENT OF HUMAN RESOURCES?

John Raven suggests forcefully that we should develop ways in education of assessing qualities like 'initiative, the ability to communicate, the ability to understand and influence the organisation and society?' He tells us that psychologists 'have a responsibility to help society' think through the moral dilemma involved. And yet there are a host of moral — and political — dilemmas which John Raven simply ignores. I am reminded immediately, and forcefully, of Georges Canguilhem's (1979) paper 'What is psychology?' in which he asks what is the self-appointed mission of the psychologist, the person who takes himself (*sic*) to be the 'helper' of society while ignoring 'his' function as 'policeman'. I raise the issue of 'policing' as a serious political concern for psychologists in relation to the forms of assessment Raven is proposing.

Michael Foucault has demonstrated rightly the many ways in which psychological techniques operate as 'technologies of the social', inscribed in practices which regulate and have power over individuals by claiming all the better to 'know' them. In this country, we have witnessed moves from overt strategies of policing and surveillance in education to the 'covert' kind, embodied in 'child—centred' and 'progressive' practices from the 1960's onwards (Walkerdine 1984). While we are now in a period of a return to more overt strategies of regulation in education, it is combined with a discourse of 'the person' in which, as in profiling, every aspect of the student's 'motivation' and 'personality' is open to scrutiny. Several commentators have noted (e.g. Rose 1985) that in the period of child—centredness in education, 'the child' who was supposed to be freed was in fact more closely observed, more highly regulated, than at any time in history. I suggest that John Raven's proposals fall neatly into that category. He rightly points out that teachers' 'subjective' assessments of pupils (the covert regulation and surveillance), often goes unacknowledged. But, he does not look at the way in which a potential workforce is being produced, monitored and regulated by assessment strategies which claim to assess even 'motivation'. Everything then, but everything, can now be the object of scrutiny and a 'docile worker' (to paraphrase Foucault), is one who can now not only be ready for 'flexible specialisation' and automated production, but possesses the right 'attitude' towards work (thus preventing 'anti—social' industrial action, for example). However, I think that Raven is explicitly rather more concerned with potential managers than blue—collar workers. He fears that 'ex—public school' pupils will be chosen over state school pupils for high flying management positions if we do not adopt strategies such as these. In other words, he is concerned about opportunity and fairness against privilege. This echoes concerns expressed in the 1950's when mass IQ testing and the tripartite system of education were a way of finding and developing working class talent.

This takes us into a serious and important political debate in relation to assessment, power and

empowerment and the way to achieve equality in a social democratic order. Perhaps we have never moved away from a meritocracy, but assuming that there are 'abilities' and 'motivation' which can be fairly measured, begs every question in the book. How are abilities and motivation produced in the practices which make up the social world? As psychologists we certainly need to address these central theoretical, practical and political issues. But they are not, for me, ones of an individual morality but of complex and controversial political issues. Which individuals, organisations and society's best interests are being served (as Raven puts it) when we do develop tools of this kind? Yes, as psychologists, we have a responsibility, but for me, it is a responsibility to ask difficult political questions we so easily ignore rather than ending up like scientists who refuse to accept that the unacceptable uses to which their discoveries are put have anything to do with their initial theorisations.

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This is a short version of the author's response to the comments. It retains the structure of the full response, but much of the content has been eliminated. The full version is available from the author.

The first section responds to a number of points made by individual commentators. The second section is a very curtailed response to issues relating to the "hidden curriculum" and the latent functions of education which were alluded to by several commentators. The final section asks what we, as psychologists, are going to do about the serious problems about which there seems to be general agreement, ought to be tackled. I personally think that the **Review** should be as much concerned with helping Educational Psychologists to get control over their own situation as with advancing academic understanding.

Some Specific Responses

Gellatly raises some fundamental issues when he speaks of values being triggered by environmental cues. I use the words 'valued behaviours' to refer to behaviours which are more like compulsions than anything else. They are actions which people keep engaging in 'despite themselves' — and often despite punishment. Our work suggests that, as with sexual behaviour⁽¹⁾ there are marked genetic and social allocative processes at work. No environmental or educational hypothesis can explain how it comes about that adolescents' sexual attitudes and behaviour are more characteristic of the socio—economic groups they will end up with than those they left. We have shown⁽²⁾ that valuing such things as independence, taking responsibility, being original, toughness and strength, being told exactly what to do, and having strict rules to guide one's life is more closely related to the groups young people will enter than those they have left. Gellatly's comment raises questions about how values are triggered, promoted, and translated into effect. Relevant questions include: Does the environment in which young people find themselves expose them to role models who share their values and thus legitimise them? Do these role models help them to develop the competencies which are required to undertake those valued activities effectively? Do their mentors see it as part of their job to think about their incipient concerns and talents and harness the former to facilitate the development of the latter by guiding them through one or other of a wide variety of *alternative* "zones of proximal development."

What we have here are a number of issues which our traditional models of competence, assessment, and development have had the greatest difficulty handling. I have suggested that a way forward can be found by writing *descriptive statements* about the activities which people value, the competencies they exercise whilst engaging in them, and the environments in which they find themselves. These descriptive statements are more like chemical equations which can take account of a large number of specificities in the individual and the environment than they are like physicists "variable"—based formulae.

The result of all this is that, while I am pleased to have Tomlinson's approval of an interactive position, the fact that he has lumped me with a range of incompatible bedfellows makes me wonder whether he has really grasped just how radical is the paradigm shift that is required. But, sorry Drs. Gellatly, Edwards and Walkerdine, to investigate these things, to investigate the effects of *all* the things that go on in schools, we **do** need ways of indexing everything that is

going on in classrooms (and *not* through single—variable, Flanders—type, ratings) and *all* potentially important outcomes of the process. Note that this means changing *both* our scientific paradigms and our beliefs about how science advances.

It follows from what has been said that, as Broadfoot indicates, Edwards is mistaken in her belief that psychologists and educationists — and the Training Agency in particular — are on the verge of assessing qualities like problem solving ability and the ability to communicate. As Broadfoot says, these are difficult and demanding activities. To assess them in any meaningful way it is necessary first to find out what kinds of activity the person being assessed "wants" to undertake and then whether he or she displays relevant competencies whilst undertaking those activities. Beyond this, none of the attempts I have seen to assess these qualities take on board such problems as the following: The four most common reasons for "failure to communicate" are (a) a lack of interest in communicating whatever it is that someone else thinks one should communicate coupled with a lack of interest on the part of the assessor in "hearing" whatever it is that the person concerned actually wants to communicate, (b) a belief that one has (in that situation) no *right* to communicate anything, (c) inability of the recipient of the message to "listen" and (d) the recipient's belief that the originator of the message has nothing to say and no right to say it. Despite Broadfoot's optimism about the profiling movement, I therefore remain skeptical about its ability to deliver.

Gellatly's last sentence coalesces two issues in such a way as to conceal an important fundamental issue. The fact is that, despite what he says, people, all over the world, have, for the past half century, voted ever increasing funds for education. They did this because they believed that it would promote economic and social development and make for a more humane and just society in which more of the talents of more of the population would be developed, utilised and equitably rewarded.

The problem now is that these myths have been exposed for what they are. Most pupils, parents, and teachers know that secondary education confers few benefits on pupils other than a chance to compete for a passport to a protected occupation⁽³⁾. If the educational system is to deliver the benefits which most people want from it, it is essential to (among other things) develop a better understanding of the nature of the competencies which are to be fostered, how they are to be fostered, and how progress toward them is to be assessed. Our task is emphatically *not* to bring more people to value "education" if, by that, is meant valuing the kind of "education" that is currently offered in most schools and colleges.

I am intrigued by the role which Tomlinson assigns to the NCC in orchestrating the required set of activities. One of the things we thought we were doing when we carried out Schools Council **Enquiry One**⁽⁴⁾ was establishing what the customers and staff of the educational system wanted from it. (Those who "fund the educational system" (quote from Edwards) are neither "policy makers" nor academics like Willis). The problem which has dogged us since has been that it has not been possible to get adequate funding to answer the four questions which stemmed from the data: "Are the priorities of these groups correct?"; "If so, how are the desired qualities to be fostered?"; "Why do most schools fail to foster these qualities?"; and "How is their development to be assessed?" For the past quarter of a century I have tried to contribute to the answers — but the conditions under which the work has had to be carried out have been anything but satisfactory and conducive to obtaining the answers. Furthermore, I never

expected the journey to yield so many surprises, to discover that the causes of the educational system's problems are so deep seated and so far removed from the symptoms, that the journey would get me into so much trouble, or that it would lead to such radical re—orientations in my basic psychological orientation. I would like to think that Tomlinson is right and that the NCC will be more supportive of such fundamental and transformative policy—relevant adventures than its predecessors have been, but I doubt very much that that will be the case unless we take very firm steps to ensure that it happens.

I have already responded to a number of Tomlinson's comments. The fact that he described my views as utopian is perhaps more important than may at first appear. If we do not take the problems which led me to make these observations seriously they will have effects which are every bit as damaging as not taking environmental issues seriously. That the Greens' view that radical changes are urgently needed in the way we run our society is also sometimes said to be utopian should therefore give us pause for thought.

The first half of Edwards' paper is full of debatable propositions which I ought to take up to try to prevent the perpetuation of mistakes and misunderstandings. But there simply is not space to do so. The last third seems however, to imply that all would be well if we backed off assessment. But the evidence⁽⁵⁾ is that unless people have concepts to help them to think about the nature of incipient talents and how they are to be fostered, those talents tend not to get recognised, developed, or utilised.

I am not sure that I understand what Edwards means by "fragmentation" ... but even so, I am inclined to comment that it is the way psychologists have tried to think about people that is the problem — not fragmentation *per se*. I, of course agree with her about the importance of studying the effects — and I include *pace* Walkerdine — social effects as well as personal effects — of making different kinds of assessment and using them in different ways: but I do not think that the problem is resolved by blanket statements to the effect that the person being assessed owns the assessment. My point is — and I think Edwards is really agreeing with me although she does not seem to have taken the implications on board in relation to problem solving and communication — that, because *all* important competencies are motivational dispositions, the difficulties which are so evident in the assessment of "personal effectiveness" (which implies the ability to achieve one's *own* goals) permeate the whole field of assessment.

It is however important to note that both Edwards and I recognise that this is a crucially important area in which our current thoughtways land us in trouble. What we need to do is, not to engage in a mutual derogation exercise, but to find ways in which a number of teams of researchers, whose work is based on different assumptions, can get to work.

I have really nothing to say about Kutnick's paper except that orchestrating the kind of group activity he speaks about is *part* of effective mentoring. It is therefore not true that he is offering "an even more basic approach".

I want to comment on what Broadfoot does not say rather than what she does say. Broadfoot's initiation into research was in a project which came into being because a group of Scottish head teachers had realised how damaging is the backwash effect of the "academic" examination system. They asked the Scottish Council for Research in Education to see what it could do to

broaden the basis of the assessments. Although the record forms produced by the **Pupils in Profile** project have been widely used as a basis for other profiling systems, what Dockrell and Broadfoot (6) really showed was that only one "non—academic" quality ("persistence") could be reliably assessed using conventional approaches. In other words *they were unable to deliver what the Heads needed*. Yet, despite the razz—matazz of the profiling movement and the MSC, it has never been possible to carry out the fundamental research which is needed to develop tools which would meet their needs. Thus the whole "profiling" movement has no substantive foundation and must, like Broadfoot's other Great White Hope, collapse. What we, as psychologists have to do is find ways of carrying out the necessary R & D. Failure to do so will not only mean that most children will continue to be unable to develop or get recognition for their talents. It will also mean that most schooling for most children will continue to be standardless. And it is our standardless schools which have, above all else, fuelled the demand for testing.

By now it will be clear that I have some fundamental disagreements with Walkerdine. But, on the other hand, she is the only commentator who has grasped just how serious are the dangers involved in doing the very things which are essential to effective education. However, while agreeing on the need to expose what is going on to the public gaze, I would reverse her conclusion that we need to recognise the political dimensions of our activities. That perpetuates the mistaken belief that these issues impinge on us in our role as citizens and not in our role as scientists. Instead, what we need to do is to bring these "political" issues within the domain of science. Political beliefs are central to competence, including our competence as *psychologists*. If what I have said is correct, we need to assess political beliefs as part of our assessments of competence. (Employers already know this, that's why they try to recruit ex public—school pupils). But modern societies need new forms of bureaucracy and democracy to function effectively. So what we, as psychologists, need to do is to lay claim to the study of these organisational arrangements both because they determine our behaviour and because improved arrangements in these areas are crucial to the future of our society — and not just to effective schooling. So while applauding because Walkerdine, like Chomsky⁷ has grasped the issue, I contend that she has got the way forward back to front. It is part of the paradigm shift I spoke of earlier. The sun does *not* move round the earth. Political beliefs, actions and organisational arrangements form *part* of the domain of psychology and education and are not unmentionable topics which must not be discussed. (None of which should be taken to mean that I ~~do~~ think that Walkerdine should not be encouraged to pursue her line).

The Hidden Curriculum and the Latent Functions of Education

Edwards, Gellatly and Walkerdine have suggested that I have paid insufficient attention to the "hidden curriculum", "the other things which schools do", or what some would refer to as the latent (or social) functions of education and the educational system. A quarter of my full response is devoted to these issues. All that there is space to do here is to point out that if such comments are to be taken seriously those who make them will have to find ways of indexing the social and classroom processes and range of effects they are concerned about. That is, they will have to find ways of assessing values and the ability to translate values into effect. They will have to find ways of examining complex interactions. They will have to accept that it is more important to get a rough fix on all the important and relevant inputs and outcomes (including sociological outcomes) than to get an accurate fix on one or two of them. They will therefore

have to abandon psychologists' traditional concern with scaled "variables". They will have to develop much better theories to help them to decide what it is important to record. Thus, they will have to move away not merely from Flanders—type studies, but also from Pace and Stern type descriptions of the environment.

The Way Forward

The key question is of course, *are they serious* — or are they, as Chomsky suggests, really only court jesters? If we, as psychologists, do not want to live up to Chomsky's stereotype of academics and intellectuals, what are we to do? And how are we to organise to get to do what needs to be done?

It will by now be clear that, while there are useful disagreements between myself and the commentators, there is also considerable agreement both that the area is problematic and that further work is urgently required if the quality of education is to be improved. Most of the disagreements between us turn on issues which will eventually be resolved as a series of researchers tramp over "the same" ground, wearing different spectacles, possessing different tools, making different assumptions, with different preoccupations and looking for, and at, different things.

It seems that there is a broad measure of agreement that we need a new measurement model which enables us to assess a much wider range of the outcomes of the educational process, which provides information to the individual as well as to others, and which makes it possible to provide broadly based feedback on school effectiveness to policy makers, school boards, and parents. We need tools to help teachers implement broadly oriented developmental processes. We need institutional arrangements to expose the work of individual teachers, bureaucrats and officials of "private" enterprises to the public gaze. We need educational programmes which encourage all members of society — not just psychologists — to regard it as part of their professional and scientific (and not merely citizen/political) role to set their work in the context of observations about how society — as an organisation — works.

Do we refer the task of finding a way forward to the Section Committee? Do we form a working party to co—ordinate publicity and canvass MPs? How do we, *pace* Rothschild, put our own house in order? Do we send suggestions to the Newsletter editor? Or do we start by compiling a register of those who are interested in doing something — anything — about these problems and then get together to see if we can hammer out ways forward?

Notes

1. Kinsey 1948
2. Raven 1977
3. Raven 1977, Goodlad 1983, CES 1977, MacBeath et al 1981
4. Morton—Williams et al 1968
5. See e.g. Flanagan 1978, McClelland 1979, 1982, Miron and McClelland 1979, Raven et al 1985
6. Dockrell, Broadfoot et al 1977
7. Chomsky 1987.

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EDUCATIONAL PSYCHOLOGY TEACHING IN BRITISH TEACHER TRAINING INSTITUTIONS 1988

Edgar Stones and Beatrice Nagel
Introduction

This report is based on a small scale investigation carried out in connection with the Vernon—Wall 1988 lecture to the BPS Education Sections (Stones 1989). The investigation took the form of a straw poll of institutions to get an idea of the present state of educational psychology in teacher training institutions in Britain. Although it was merely intended to provide information relating to the lecture several people expressed an interest and suggested it should be more widely circulated. This paper is a reply to those suggestions. A questionnaire was sent to 29 institutions in the public and university sectors inviting them to supply information about the place of educational psychology in pre—service and in—service courses and the nature of the provision made. 22 replies were received providing information on 30 courses. Of these courses, 4 did no psychology at all and 5 reported that any psychology done was 'incidental'. This type of reply can probably be construed as 'nil' or 'negligible'. Educational psychology was reported as being taught on thirteen courses. On one of these courses two sessions of two and a half hours length comprised the educational psychology input. The B Ed course devoting most time to educational psychology allocated less than eight hours per term averaged over four years. One PGCE return with no educational psychology opined: 'Psychology could be damaging. It could turn the students off'. 13 courses included educational psychology either as options or modules or integrated into the curriculum. With so little time spent on most courses offering educational psychology one feels the providers may be liable under the Trades Descriptions Act.