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# *Changing Children's Minds*

Feuerstein's revolution in the  
teaching of intelligence

BY  
HOWARD SHARRON  
AND MARTHA COULTER

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Revolution in the Teaching of Intelligence by  
Howard Sharron and Martha Coulter  
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## FOREWORD

### *Changing Children's Minds*

Writing a foreword to the second edition of a book is always easier because the reactions of readers to the facts presented in the book are already known to the writer. *Changing Children's Minds* is a book which presents both the underlying theory of Structural Cognitive Modifiability and Mediated Learning Experience and applied systems derived from it. The author succeeds in balancing the theory and applications in such a way that the theory 'shines' through the facts where it has the greatest relevance. The applied systems described in the book include the dynamic assessment system (Learning Potential Assessment Device) and the rehabilitation and cognitive education system (Instrumental Enrichment). The author, a skilled journalist, painted a broad canvass of possible application ranging from the adaptation of immigrant children, to the cognitive rehabilitation of prison inmates, to the programmes for the gifted.

It was to the benefit of the book that its author came to the Theory of Cognitive Structural Modifiability being already well acquainted with the problems related to conventional approaches in psychometric testing and special education. Thus he was able to make comparisons and to draw his own conclusions. The theory offered in this book was not, when first elaborated, easily accepted by those who had a view of human intelligence as a fixed, immutable structure which can be used, but which cannot be changed. It was equally difficult to accept that the task of education is not to reveal the natural capacities of a person, but rather to render this person more modifiable, so that he or she can change these 'natural' capacities. Another controversial aspect is the existent system of classification which assigns individuals who have some problems on the manifest level of functioning to a special category which automatically limits their access to the higher level educational and vocational opportunities. Any attempt

to require from the individual whose manifest level of functioning is low to solve problems or to behave on the level which is considered above his/her abilities used to be perceived either as unrealistic, or cruel to the student, or economically impossible for society. The ideal of many special education and residential care programmes is to find a niche for an individual so that he/she can fit into it as is, without any requirements for change.

For all these reasons the approach presented in this book is departing in a significant way from many of the existent scientific beliefs and educational practices. It is based on the optimistic belief system that postulates that human cognitive processes are highly modifiable, and that the possible modification has a structural rather than quantitative character. Within this approach the task of psycho-educational assessment is not to predict and classify, but rather to identify the dimensions of learning potential of individuals and to chart the necessary educational intervention for the enhancement of this potential. The Instrumental Enrichment programme, on the other hand, offers the opportunity to correct the deficient cognitive functions of the individual and to enhance his/her modifiability.

The author succeeded in placing the above mentioned principles into a broader context including his own views about the educational system and its relationships to ideology and social issues. Particularly instructive, seems his discussion of the problems accompanying the implementation of the Instrumental Enrichment programme in Britain. The programme, though tightly structured, requires a high level of creativity and commitment on the part of teachers and school administrators. It cannot be taught formalistically. Those teachers and administrators who were not ready for a change in their own cognitive style naturally failed to implement the programme in a proper way. Another interesting point is the challenge that the Instrumental Enrichment programme posed for both ultra-liberals and authoritarianists in British education. Ultra-liberals tend to let the classroom discussion run away, while more authoritarian teachers did not allow enough effective pupil

participation in the lessons. The author offers some insight into the possible role of the Instrumental Enrichment programme in balancing the teacher-centred and the pupil-centred education.

It is also important that the systematic presentation of material is interspersed with the first hand observations and experiences of people whose life has been changed because of the dynamic assessment of their modifiability and the intervention programmes which enhanced this modifiability. These vignettes help to turn this book into an instrument contributing to the modifiability of its readers and their children. This care to go beyond the theoretical presentation to a more direct experience of its meaning is a very important characteristic of this book and refers not only to the individual, but also to certain of the modalities of placement such as preparatory classes, the treatment co-techniques and other approaches which have been derived and generated by this theory. It is from this point of view that this book represents a very valuable document, which represents the need for a change, the possibilities for change, and the way in which change can become effected in real life situations.

The introduction of a number of new chapters into this edition certainly adds a very important element, making this book not only more valuable to a new reader, but also to those who follow the developments in this field. The two chapters by Martha Coulter present a brief review of the research literature in the field of theory and applications which became quite voluminous over the past ten years. It is certainly a meritorious task to make these findings available to a broader range of readers. The projects mentioned in these chapters can be roughly divided into three groups.

The first group includes applications of already existent methods to the new populations of children and adults with special needs. The second group includes theoretical and experimental research aimed at further elaboration of the notion of structural cognitive modifiability and mediated learning. The third group, however, includes some works which depart significantly from the original theoretical base, and instead of elaborating theory, lead to its

reduction. For example, an attempt to operationalise one of the major criteria of mediated learning experience, Intentionality as focusing, certainly cannot represent the enrichment or elaboration of the theory, but its reduction. Intentionality includes a number of cognitive and behavioural activities on the part of the mediator which change the process of learning by the mediatee. These activities change the physical properties of stimulus material and convey to a child the intentional character of the interaction and learning experience. Focusing is at best one of a great number of aspects which render the interaction its intentional character. It is the deep structure of the notion of Intentionality that provides an opportunity to link the theory of Mediated Learning Experience with the critical issues in philosophy, biology, psychology, and other fields. The notion of focusing forecloses such an opportunity. Somewhat similar reductionist tendencies can be discerned in the treatment of the criterion of Meaning, as affectionality. Affective aspect is just one of many which together converge into the notion of Meaning as reflecting the purposefulness of the mediated learning situation.

The conclusion one can draw from these critical remarks is that there is a significant difference between the meaningful elaboration of theory and applications which may necessitate the introduction of new terms, and those terminological changes which obscure the basic theoretical notions and actually foreclose their productive development. In some of the above mentioned 'innovations' it is easy to discern an attempt to turn the Mediated Learning Experience criteria into a set of simple behavioural recipes. Some of these recipes can be quite useful, but the whole approach has nothing to do with the letter and spirit of MLE. MLE is not a cook-book, and cannot be reduced to a list of prescribed behavioural manipulations. It is the anti-reductionist and multi-dimensional character of MLE that makes it open for true development and innovation.

**Professor Reuven Feuerstein**  
Jerusalem 1993

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To two people in particular I am especially indebted. Andrew Sutton first pointed me towards Professor Feuerstein as being a worthy subject for investigation, and advised me throughout the writing of this book. Issacher Ilan, an officer of the Jewish Agency and an internationally respected social worker, went to enormous trouble to make my first visit to Israel a success, and arranged my first meeting with Professor Feuerstein. I have not been able to thank him enough.

In addition, I would like to thank Alma Craft and Keith Weller for permission to quote extensively from the report *Making Up Our Minds*, originally published by the Schools Council. They have fought consistently for Instrumental Enrichment and for Cognitive Education generally, in difficult conditions. I would also like to thank the American publishers, Stratton and Grunne, for permission to quote from L. Mann's *On the Trail of Cognitive Process: A Historical Perspective on Cognitive Education* (1979).

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I would like to acknowledge the work of researchers into Instrumental Enrichment around the world; those mentioned here and those who could not be included because of pressure of space. Their determination to find a method which will help children, often abandoned in the past by psychologists and educationalists, and which will also stand up to rigorous testing, is worthy, in my view, of great commendation.

I would also like to thank Sue Smith for helping to organise and type this second edition, Liz Rumbold and Kristine Kuipers for proof-reading this edition, Martha Coulter and Kathy Greenberg for the contribution of their excellent chapters and Ernest Hecht, the publisher at Souvenir Press who first enabled this book to see the light of day.

**Howard Sharron**

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## INTRODUCTION

It is no coincidence that the ideas of Reuven Feuerstein are now finally gaining a wider currency, after almost 30 years in the intellectual wilderness. The conditions that led to his ostracism are crumbling away as the doubts grow apace on the nature of intelligence and the causes of educational retardation, not to mention the effectiveness of present remedial techniques and placements for 'children with learning difficulties'.

In the 1950s, when Feuerstein began his controversial work with very backward children in Israel, the West was full of confidence and complacency about its ability to measure children's intelligence and to place them in a school system graded to suit their varying ability levels. In Britain there were Grammar Schools, Secondary Moderns, Technical Schools and Special Schools for the Educationally Subnormal. Placement followed tests based on the science of intelligence measurement – psychometrics.

There was no independent questioning that intelligence was both inherited and immutable and, since this was so, most psychologists thought measurement was able to predict future performance at school and in society at large.

The last thing such psychologists wanted to hear about was the astonishing results of a renegade Israeli clinical psychologist who had practically demonstrated that intelligence was a much more fluid phenomenon than hitherto supposed, and that it could be taught to many children wrongly characterised by IQ tests as 'defectives'. They were not interested in his remedial methods or in the special environments through which children with severe learning, psychological, behavioural and medical problems were being integrated into mainstream education and society. The West had its system of discrimination and segregation and a powerful set of vested professional interests relied upon it.

The West's edifice was built upon the assumption of an individual's intelligence being a once-and-for-all God-given endowment. But such notions became increasingly vulnerable to

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attack. Because poor intellectual performance corresponded so closely with low social and economic status and membership of ethnic groups, it became necessary to consider broader determinants of intelligence than heredity.

Crude and supposedly incontrovertible meanings deduced from IQ test scores were also challenged and there is now a belated recognition of what many parents have always intuitively known (and which provided a large part of the gut reaction against the 11-plus), that the one constant feature of childhood is change. Trying to determine a child's whole future with a test at 11 years old is an inhuman nonsense: any snapshot of a child's intellectual performance at one particular time can only be of very limited significance. IQ tests have no way of measuring the effect of past influences or of future potential; they sacrifice everything to the Manifest Level of Functioning – what a child can do, unaided, at the time of testing.

It seems an absurdly obvious point to make, particularly to educational psychologists and teachers who resort to IQ tests, that conventional testing cannot measure the effect of teaching on the child, or a child's ability to learn! Nevertheless, T.E. Vernon, a British critic of intelligence tests, had to say in 1969: "It is indeed curious that we use intelligence tests mainly to predict capacity for learning and yet none of our tests involve any learning, instead they give us a cross-section of what has been learned".

Despite the growing objections to the premise that intelligence is a once-and-for-all endowment at birth, the final death-blow to crude IQ testing has been a long time coming. In Britain, such tests are still widely used as a matter of routine on children in many mainstream state schools. And they continue to be used by the majority of educational psychologists in the assessment of mentally and physically handicapped children and those with other learning difficulties.

Part of the reason for the persistence of conventional psychometrics is professional inertia. Psychometrics has played an important role in justifying the development of educational

psychology as a profession based on the same sort of rigorous methods as the natural sciences, there are vested interests in local educational authorities and universities determinedly defending it. But perhaps the more important reason is that there has been nothing to satisfactorily take the place of IQ testing and the theories of intelligence which underpin it.

Teachers' experiences in the classroom tend to confirm apparent common sense, but in fact deeply ideological, views that children have either 'got it' or 'haven't got it'. It is a comfortable and myopic view which fails to take account of the fact that children who fail in school and who cannot cope with formal learning situations, can often function well outside school in games or work where complex skills are involved.

But teachers' overly black-and-white view of children's intellectual capacity is also an understandable response to some confusing and frustrating phenomena which every teacher has experienced. This is the way that some children, after painstaking instruction, can apparently master some problem or new skill, but, within a day or even hours, lose that ability so completely that it seems as if it was never taught. Or a child may manage to master a problem, but then simply cannot apply the problem-solving principles to new tasks.

The response of educationalists to these children is to try to measure their lack of ability and – armed with a battery of intelligence test results – categorise them along a 'continuum of needs' as having (in the new argot) severe learning difficulties, moderate learning difficulties or just plain learning difficulties.

Whatever the terms, the effects of this type of assessment and placement on children are the same. The teaching they are given is reduced in complexity according to their assigned intellectual status, and the children never progress beyond what is officially expected of them. Whatever potential they may have had becomes well and truly buried beneath the assumptions and the reality of their IQ scores.

This passive approach to children's intellectual performance

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is based on the conception of intelligence as an ineluctable substance endowed by genetics, or by God. But what if we had a less mystical and more practical notion of intelligence as a set of skills or thinking processes which enable us to make sense of the world and creatively use information to tackle new tasks – the ability, in other words, to learn from experience?

It might not seem like it, but this formulation of what constitutes intelligence has the most profound implications. What we might call endowment still remains important but it loses its primary role in development in favour of the way children's minds are fashioned to enable them to see, understand and act upon the world. Rather than being a passive and pessimistic view of the ability to modify children's intellectual performance, it allows for an optimistic and interventionist outlook. It suggests that the thinking skills we need in order to learn effectively, and which are normally absorbed by children as they develop in their family and culture, can, if absent, be instrumentally remedied. With this approach educationalists are encouraged to retain a sense of children's potential to develop and change, and warned away from too readily passing life-sentences of 'sub-normality'.

It has also allowed for the opening up of the whole new field of Cognitive Education – teaching children how to think more effectively – which is gradually being seen as one of the most rewarding innovations in education in the Western and Third Worlds. This achievement is in some large part due to the work of Professor Reuven Feuerstein, the subject of this book.

Feuerstein's main tenet is that children who are unable to learn from experience or to benefit from teaching are usually suffering from cognitive deficiencies – put more simply, they have not learned to think coherently. They therefore have no apparatus with which to organise, store and re-use the mass of information which bombards children every minute of their waking lives. Instead of considering new problems and thinking them through with the benefit of past lessons learned, such children either react impulsively or become inert in the face of tasks or information

so that they do not have the intellectual means to solve or process.

Such responses will immediately strike chords with parents and a whole range of professionals dealing with both low achieving and delinquent children. Feuerstein points out that impulsiveness is one of the most striking features characterising these children: They do not have the structured thought needed to learn from their mistakes, to act rationally in new situations or to absorb the values of the culture in which they are brought up.

Here it is possible to glimpse the explanatory power of Feuerstein's theories and the remedial techniques – collectively called Instrumental Enrichment (IE) – which spring from them. One should add that both the theories and the techniques have been successfully tested in a large number of countries: in the USA and Canada where Instrumental Enrichment is used extensively, and in South American countries, like Venezuela, where it is part of the education programme for state-trained teachers. There is a growing body of research evidence that Instrumental Enrichment is effective with a wide range of client populations.

For example, it is now accepted in the Canadian penal system that Instrumental Enrichment is of great benefit to prisoners of all ages. Third-world countries have found that it helps children to develop the thinking patterns and concepts that they need to live in industrial societies. It has been shown to improve the performance of working-class, immigrant and ethnic-minority children in Israel and other countries where it has been tested in state education systems. In clinical or group situations it has been shown to have a range of beneficial effects for children with mental handicaps or other disruptive conditions, enabling them to achieve levels of performance previously considered absolutely impossible by other established medical and psychological opinion.

A word needs to be said here about Feuerstein's work with children who are mentally handicapped. In many ways it is his most inspiring, but his claims for his methods are slightly different with these children. He categorically maintains that children who are low-functioning and educationally retarded as a result of cognitive

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deficiencies which are 'social' in origin can be brought to function at average or above-average levels with Instrumental Enrichment. He does not say this for children who have genetic or organic conditions like Down's Syndrome or brain damage. He does claim that he can dramatically improve their intellectual performance and their average ability. In some ways though, the degree of change is far greater and far more unexpected and exciting with these children, than with those who have only been socially handicapped.

With children who have been severely socially handicapped or disabled by organic or genetic conditions, Feuerstein often combines Instrumental Enrichment with specially designed placements which are usually residential in character. These therapeutic settings, as much as his theoretical work and Instrumental Enrichment techniques, constitute Feuerstein's revolution in special education. Some of the principles behind them will be described in this book. It is astonishing to consider that many of these environments were developed in the years just after the war and yet they are still, in my opinion, years ahead of anything that the British special education or care system has to offer.

The objectives of this book are to introduce the reader to the broad span of Feuerstein's ideas and work, from the theories behind Instrumental Enrichment to his commitment to plastic surgery for children with Down's Syndrome. It will also offer a taste of the way some of the Instrumental Enrichment materials are used by practitioners, and discuss some of the research carried out on their effectiveness. Much of this material has never been collected together before. Little of it has been accessible, physically or intellectually to those parents and professionals without the academic background or time to hunt out and plough through some very difficult documentation. Educationalists in many far-flung countries are greatly excited by Feuerstein's work and his ideas remain too important not to be disseminated in a more popular form. As well as to parents, I believe this book will be of interest to teachers in ordinary and special schools, social workers and probation officers, prison officers and psychologists

in their various services, and the medical and paramedical professionals involved with the mentally handicapped.

There is another reason for this book, a more political one. Education, like every other social endeavour, is a political arena in which opposing theories, notwithstanding their claims to scientific objectivity, slug it out for supremacy. Until now the advocates of hereditary intelligence, fixed for all time by genetics, have held sway. The opposing, purely sociological argument that rich kids always do better, has never satisfactorily been able to explain why some materially-deprived immigrant groups do better than others. Or why some children from working-class backgrounds, with similar material disadvantages, leave their peers behind and go on to university. The sociological argument is too crude to be able to explain the many exceptions.

Feuerstein offers a more sophisticated and plausible explanation of how the effects of social class and cultural deprivation can work through family relations to affect the psychology of the individuals, producing educationally retarded children, or 'low-functioning' children as he calls them, and how the seeds of delinquency are sown in children from disadvantaged groups.

In Feuerstein's understanding of child development children are placed firmly in the context of their families which interpret the world for them and, in so doing, instil the means for understanding and appreciating their own culture, and for operating as intelligent beings within it. He has analysed how this complex process of acculturation can break down, impoverishing children's intellectual capacities. To Feuerstein, cultural deprivation is alienation from one's own culture, not the dominant culture of the society that one lives in.

By insisting on a psychological and social explanation to educational backwardness, rather than a fatalistic genetic one, Feuerstein has been able to develop an interventionist and optimistic approach. The significance of this, in the contrast it represents to conventional psychological and educational practice in the West, is best summed up by Feuerstein himself in a critical

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comment on conventional psychology which recalls Marx's famous dictum on the way that academic philosophy sought merely to interpret the world rather than change it. 'What,' he asks, 'is the point of just measuring a child's intelligence and labelling him with a tag of slowness or subnormality? The point, surely, is to change the child.'

*PART 1:*

*THE HISTORICAL  
IMPERATIVE*

## *OUT OF TRAGEDY...*

As the Second World War drew to its close a major operation was launched by Zionists to bring the surviving Jewish children of Europe to Palestine. It was controlled by Youth Aliyah – the wing of the Jewish Agency formed in the 1930s to assist the escape and immigration of young Jews from Europe to the Homeland. With the help of the now semi-clandestine network of Jewish committees, Jewish Agency officers and Jewish troops in allied armies, the children were transported to Mediterranean ports and smuggled into Palestine under the noses of the British Mandate forces.

With the establishment of the Israeli state in 1948, and throughout the 1950s and 1960s, Israel experienced a second great wave of immigration from North Africa and the Middle East. These oriental Jews came from very different lands and cultures, sometimes hundreds, if not thousands, of years removed from the western technological culture of Israel. In many cases they came from communities that had been atomised by repression and which had lost most of their cultural bonds.

The accounts of these vast movements of people have tended to concentrate, understandably, on the heroic achievements of the rescuers and the rescued. But in fact they presented Israel with a set of social problems equally if not more heroic in scale. Not least of these was the discovery by educationalists in Youth Aliyah and Jewish society at large that great numbers of children from European and oriental Jewish immigrant communities were failing to thrive in their new country. The former were often too traumatised by the Holocaust to be able to integrate easily into schools, while the latter seemed unable to perform at the appropriate level in school; they rejected or were rejected by the mainstream culture and were beginning to form the basis of a marginal underclass.

It was not ideologically possible however, for Israel simply to take the conventional Western route and try and contain their youth problem in the ghettos of low-achieving schools or

young offender institutions. These children were too important; they were symbols of the tragic past and of the optimistic future of the Jewish people, and of the Israeli state. This exceptional commitment is important to mention because it determined how services were constructed to assist them, and allowed an environment favourable to a much more radical, interventionist and humanitarian approach to child care than is our experience in the West.

A major instrument in this massive rehabilitation programme remained Youth Aliyah. It had the advantage of being a 'voluntary' organisation, outside the official education system, (even if the state gave it considerable backing) and was, therefore, more flexible in its theoretical and practical approaches to disturbed and retarded youngsters. Since its whole conception was based on the premise of 'rescuing' Jewish children, its commitment to rehabilitation was more intense than elsewhere. Knowing and understanding, and more importantly, sympathising with their past, Youth Aliyah invested enormous resources of money, expertise and patience in these children.

Rehabilitation was carried out, by and large, in Youth Villages or other residential settlements, usually within Kibbutzim, which acted both as induction centres for new young immigrants to Israel and as therapeutic communities for children too disturbed to exist for the time being in ordinary Jewish Society.

Professor Feuerstein, who had fled Nazi-occupied Romania in 1944, became a key figure in the development of Youth Aliyah's services. He had started with Youth Aliyah in 1945 as a special teacher and counsellor for children who had survived the concentration camps and became the director of psychological services Europe in 1951, eventually establishing in 1954 its Jerusalem Child Guidance Clinic. He remained its director until 1983 and is now the director of the Hadassah Wizo Canada Child Research Institute in Jerusalem.

His work has consisted of two concurrent and merging themes: the reintegration of severely emotionally-disturbed children through a programme of general enrichment and socialisation,

and helping socially and culturally-deprived, as well as handicapped children with very poor intellectual functioning, to raise their performances through Instrumental Enrichment. This is the programme of structured exercises which are based on Feuerstein's theoretical analyses of children's thinking failures and which are designed to tutor 'intelligence'.

### **The Youth Villages**

One of the most basic principles of Feuerstein's work has been that disturbed, delinquent and retarded children should never be completely cut off from their normal peers. For Feuerstein special education has only one purpose, to prepare problem children for re-entry into normal schools and ordinary society. And contact with ordinary children is one of the most powerful agents for achieving this. In cold print this might seem merely commonsensical: but it stands in sharp contrast to the desperately confused special-education, child-care and juvenile justice systems in the West.

Our special-education systems, for example, including that part of the state system in Israel influenced by the West, are based on the premise that retarded performers should be segregated for their educational lives in special schools. Now, at least rhetorically, it is guided by the principle of integration. Yet, once inside the system, with its separate and autonomous existence, it has been virtually impossible to get children out. Attempts by the British, Americans and Europeans to integrate educationally retarded or disabled children into ordinary schools, often without any preparation, are failing. In the UK the same proportion of children are still going into special schools as ever. In the juvenile justice system, Community Homes with Education (formerly approved schools) and other penal institutions isolate children and youths because of their delinquency. None of these institutions is run by the education system, and education is often a poorly-executed afterthought to care or control objectives.

The approach of Feuerstein and his colleagues could not have been more different. Instead of total and permanent

segregation of disturbed or retarded children on the one hand, or a hapless integration with normal children on the other, they insisted on a planned and structured 're-entry' of problem children into the mainstream, in the context of an educational institution. The Youth Villages and Kibbutz-based residential camps, it must be remembered, were educational institutions in the widest sense, and were ideal for the purpose. They sought to educate and socialise children from widely varying academic and cultural backgrounds in order to forge new Israeli citizens.

'Treatment groups' of 25 very psychologically- and emotionally-disturbed children were established within the Youth Aliyah Villages and these received separate instruction and care, as well as a controlled interaction with their normal peers. This afforded the problem children protection from damaging competition and rejection, while preventing the establishment of a delinquent sub-culture. Feuerstein maintains, as do many others, that this deviant sub-culture always establishes itself in institutions where all the adolescent inmates are considered by the authorities, and by themselves, as social problems of one sort or another.

Writing in 1974 on the type of child placed in the treatment group, Feuerstein explained that the qualifications were rather severe. 'Total or functional illiteracy, low conventionally-measured intelligence, (40 to 75 IQ), primary emotional disturbance and severe behaviour disorders. About 20% of these children were considered to be borderline psychotic. They had either been hospitalised or hospitalisation had been seriously considered. Others had been rejected from special or normal school systems because of the severity of their disturbance'.

The treatment groups provided the setting for much of Feuerstein's later and more famous work. They were the basis for other innovative types of placement for children who would normally be segregated. I will return to these later because of their importance to practices of childcare and special education in the West.

The most important development of Feuerstein's work – the elaboration of the theory of the Mediated Learning Experience and Structural Cognitive Modifiability, and the techniques to improve children's thinking skills called Instrumental Enrichment – occurred within the context of the Youth Village treatment groups. The Youth Village which pioneered the 'treatment group' work was the Swiss-sponsored village Kyriat Yearim. Studies of children from Kyriat Yearim, later tested by the army, showed that they had not only recovered normal functioning but performed better than the average for the population as a whole. Only graduates of the highly privileged Kibbutzim fared better.

To gather the significance of this an analogy is in order. It is comparable to the majority of children in our own schools for the moderately educationally retarded, those in schools for the maladjusted and those in suspension units, children's homes and increasingly those being sent into Detention Centres and Youth Custody, turning out to be responsible and capable citizens with a higher-than-average intellectual performance. In Britain the chance of this happening is unthinkable (*see Part 4 Changing Environments*).

## *CHILDREN OF THE MELLAH*

A fundamental tenet of Israeli nationhood is the Law of Return, which gives all Jews the right to emigrate to Israel. One of the few times this principle was seriously questioned was over the children of the Moroccan Mellah – the Jewish enclaves in Morocco – who were found to be so backward that it was suggested that many of them could never integrate into Israeli society, at least without placing an impossible burden on the State.

Moroccan Jews, like other oriental Jews, did have very different lifestyles and customs from the western, Ashkenazi Jews. Because of their comparative technological backwardness and, some would say, because of the subtle bias of the Ashkenazi governing establishment of Israel, they were destined to take up the role of unskilled, working class and frontier settlers on poor agricultural land. It was declared at the time that the bias against oriental Jews was clearly apparent in the readiness of professionals to condemn the children of virtually a whole population group as ‘sub-normal’.

On the other hand the conventional tests, including those designed as far as possible to be culturally unbiased, revealed exceptionally low functioning in a wide band of Moroccan Jewish children – more so than in any other group of immigrant Jews. The implication was the Moroccan Jewish children were somehow genetically impaired,

Feuerstein, as head of Youth Aliyah’s psychological service in France and Morocco, refused to accept either position. A wide variety of tests did indeed show very poor intellectual functioning, even when compared with other pre-industrial oriental Jewish communities like the Yemenites. ‘They had a very poor grasp of reality; poor perception; they failed to use all sources of information available to them; some children of 14 years could not even name the days of the week. There was not the slightest doubt that they were functioning at very low levels’, explained Feuerstein.

But the genetic explanation of their consistently low IQ

scores did not convince him either. Unlike the other professionals who had tested these children, Feuerstein was aware as a keen student of Jewish history, that Moroccan Jewry had in the past a culture which had created one of the greatest traditions of Talmudic scholasticism in the Diaspora. Something had clearly happened to the Moroccan Jewish community, and to a lesser extent to Jews from other North African countries, which might be responsible for the strange deficiencies in the children. Whatever it was, the conventional psychometric tests were not explaining it, he recalls:

One of the great confusions of psychometric testing, which became very clear to us in those times in Morocco, is that it could not distinguish between performance and potential. All our tests on the Moroccan children showed us that they were performing unnaturally badly. We felt obliged to see if the children really had more hidden potential than was being manifested in the tests. But there was not a test, European or American, that could help us discover if these children really had more capacity to learn than we were giving them credit for.

### **Testing for Potential**

The system that Feuerstein and the famous Swiss psychologist, Andre Rey, finally constructed was exceptionally simple. They tested the children in order to locate some of the intellectual problems they were experiencing, then carried out some highly focused teaching and psychological treatment, and then re-tested the children to see how their performance had changed. The results of this test-teach-test routine confounded those of the conventional tests: children previously assessed as having IQs of 55-65 were found to have the potential to obtain at least normal functioning.

At the Hadassah Wizo Canada Research Institute in Jerusalem, Feuerstein still has some of the records of the Moroccan children tested in Israel and Morocco, with their original low IQ scores. He also has records of their academic achievement



