

# Chapter 1

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## Unlocking Cognitive Potential

**F**euerstein is well known for his work with students who struggle to learn. It is with the students who are considered lost, uneducable, or beyond change that Feuerstein has had his greatest success. Feuerstein's work with these students is based on his theory of Structural Cognitive Modifiability and the practices that support this theory.

### **THE THEORY OF STRUCTURAL COGNITIVE MODIFIABILITY**

The theory of Structural Cognitive Modifiability (SCM) underpins Feuerstein's belief that individuals have the potential to change. It is helpful to focus on the three component parts of "modifiability" "cognitive," and "structural" to understand the approach that Feuerstein proposes.

1. Modifiability means having the ability to adapt, to alter, and to regulate.
2. Cognitive relates to the ability to think, reason, and learn.
3. Structural involves organization and integration of the components that make up our thinking.

In linking these three concepts together, Feuerstein encourages us to think of all learners as having the potential to change or adapt, and appropriately regulate the way they think, learn, and apply their skills in different contexts.

Feuerstein's approach is not aimed at trying to overcome a particular difficulty or teach a specific skill. Rather, it is aimed at teaching learners how to learn in order to adapt their learning for different situations. The change that Feuerstein wants

to bring about is at a basic or structural level and the emphasis is on cognition. Behavior and emotions change as a result of cognitive changes, and these can overcome the negative influence of genetic predisposition, physical impairments, or educational deprivation.

Let's consider the following case study to see how this theory works in practice.

## THE CASE OF M

Eleven years ago, M was referred to the Feuerstein Institute for life-long placement in custodial care. At the time of his referral, he was 15-years-old and his IQ, according to the reports, was in the 35–44 range. His vocabulary consisted of 40–50 words and he manifested severe impairment of spatio-temporal orientation, imitation, retention, and social behavior. Echolalia (repetition of words) and echopraxia (repetition of movement) were observed, but no psychotic-autistic signs were detected. Trainability had been considered very poor, and custodial care seemed unavoidable.

M was the second of three brothers. His father, a schizophrenic, alcoholic, and poorly adjusted Foreign Legion soldier, met and married M's mother in an Asian country. The mother was retarded and illiterate and died as a hospitalized, diagnosed psychotic. M suffered from brain damage caused by prematurity and low weight at birth and required prolonged incubator care. His infancy was marked by nutritional difficulties and by repeated and prolonged separations in nurseries and foster homes. His early adolescence was spent largely in socially and educationally restrictive environments (Feuerstein, 1980, p. 10).

Read the case of M again and respond to the following questions:

- What factors from this history do you think are important when considering M's situation?
- What do you think about M's intellectual level and his potential to achieve?
- What kind of intervention, placement, or teaching do you consider appropriate for M?
- How would you describe M's future?

Feuerstein believes that there are two approaches of looking at the case of M and responding to the questions above—a passive acceptance approach and an active modification approach.

### A PASSIVE ACCEPTANCE APPROACH TO THE CASE OF M

A passive acceptance approach to answering the questions about M would focus on those aspects of M's history that include organic or innate factors—such as the father's alcoholism, the parents' mental disorders, M's premature birth, etc. These factors are all unchangeable—and can be seen as predicting a bleak future for M. His IQ score

would be seen to be in the retarded range and this score will be interpreted as being fixed and static, thus limiting M's potential to achieve. Within this view, the only treatment would be to provide M with life placement in residential care, as he will not be able to function on his own. His future would be described as being very limited as, given his very low level of functioning, he will always be dependent on others.

In this approach, the past is seen as being a predictor of the future and a damaged past will predict a low level of functioning in the future. Intelligence is seen as being a fixed number, which is unchangeable. Treatment, then, is always to accommodate the low level of functioning that is presented. This view, according to Feuerstein, presents a very pessimistic view of our ability to learn because, as the term indicates, there is just a passive (without doing anything) acceptance and perpetuation of the status quo. There is no attempt to improve or change the low level of functioning, and arrangements are made to accommodate this low level of functioning through custodial care.

## **AN ACTIVE MODIFICATION APPROACH TO THE CASE OF M**

An active modification approach to answering the questions about M focuses on those aspects of M's past that can be changed—factors such as the restricted conditions that he lived in and being deprived of stimulation, language, and affection. These factors are all reversible—and so only present as a baseline for possible change. Within this approach, M's intelligence will be viewed as being dependent on the amount of stimulation he has had and there is a belief that, with intervention, M's intelligence can be improved. The treatment for M, then, would be intensive work in enrichment programs where M is taught how to learn. M's future would be described as being dependent on the amount that he is able to learn under stimulating conditions, and there would be hope that he would improve enough to live independently.

In the active modification approach, the past is seen as merely a starting point for improvements in the future. Intelligence is seen as being a propensity or tendency to adapt to new situations and hence is multidimensional, very complex, modifiable, and subject to change. Intervention then involves intensive stimulation and interaction aimed at teaching or mediating how to learn and adapt. This is a very optimistic view of the potential of all individuals to change and learn and, as the term indicates, involves actively trying to bring about change or modifiability.

How did you answer the questions relating to the case of M? Did you focus more on passive acceptance issues or do you believe in active modification? What is your view of learning?

Feuerstein is firmly located in the active modification approach when working with learners who have difficulty. This is at the core of his theory of Structural Cognitive Modifiability. This theory proposes that with a belief in active modification, and using the tools of Mediated Learning Experience, we can bring about the necessary modification of the learners' cognitive dysfunctions, so that they can function as autonomous, independent individuals.

## PASSIVE ACCEPTANCE AND ACTIVE MODIFICATION

Consider the actual outcome of the case of M as reported by Feuerstein.

Contrary to all expectations, our assessment of M, using the Learning Potential Assessment Device, yielded a surprising level of modifiability. Accordingly, M was placed in a foster home, group care treatment program for the redevelopment of severely disturbed, low functioning adolescents. As a result of the intensive and concerted investment in M's development over the past 11 years, he has emerged as an independently functioning individual, oriented in space and time, with a full and rich command of spoken and written Hebrew, a sense of humor, social skills, and vocational ambitions. He is responsible for the maintenance of a large indoor swimming pool and has learned to speak French and some German.

In spite of M's charged heredity, organic damage, maternal deprivation, and stimulus deprivation from his restricted early environments, all of which are considered responsible for retarded performance, he proved receptive to intervention, albeit of a sustained and systematic nature. The development of his capacity to use hierarchically higher levels of cognitive processes, such as representational, anticipatory and inferential thinking, to a large extent determined his general behavioral adaptations. Thus his entire destiny was changed from anticipated placement in life-long custodial care to the life of an autonomous, independent, adaptive young man, looking forward to building a future and starting a family. (Feuerstein, 1980, p. 10)

The case of M—as indeed many other real case studies—helps us to see the effects of Feuerstein's theory put into practice. The fact that M *did* change and that the change was significant, albeit over a long period of time with intensive intervention, is testament to Feuerstein's theory of Structural Cognitive Modifiability and his belief that change begets change through active modification.

Consider the following comparison of the two approaches—a passive acceptance approach and an active modification approach. Which approach fits with the actual outcome of the case of M? Which approach guides your practice?

### Passive Acceptance

- A belief that humans are essentially unmodifiable and unchangeable
- A belief that an individual's future can be predicted on the basis of present and past levels of functioning
- A tendency to use "because of . . ." statements, e.g., "Because of his genetic problems he will not be able to . . ." or "Because his father was alcoholic he will be . . ."
- A very pessimistic view

### Active Modification

- A belief that human beings are flexible, open systems that have the potential to be modified
- A belief that individual's are open systems that have the potential to be modified
- A tendency to use "in spite of statements, e.g., "In spite of his genetic problems he is motivated to change . . ." or "In spite of his mother's absence he is receptive to mediation . . ." statements
- A very optimistic view

This chapter covered Feuerstein's theory of Structural Cognitive Modifiability. This theory, based on Feuerstein's belief in active modification, holds that individuals can change the way they think and adapt to their world. This is an optimistic approach—if you believe there is a way, you will find a solution, irrespective of the difficulties that have come before. As in the case of M, despite the severe negative organic and situational factors that influenced his early life, a belief in active modification and SCM was the catalyst for Feuerstein to use the tools of Mediated Learning Experience and the Cognitive Map to bring about significant change in M. The next chapters will focus on these tools.

Feuerstein believes that the human organism is open to modifiability at all ages and stages of development and that change is possible and desirable.

What do you believe?