The Child in the Community: Multiple Dimensions to Disadvantage

Introduction

It has been well documented that growing up under conditions of poverty make the young in the community vulnerable to manifold problems of achievement and mental health (Kapur, 1991; Misra & Mohanty, 2000). Of particular relevance to this paper is that the youngest in poor communities, experience the highest pressure resulting from the conditions of poverty. The nation's 'war against poverty' has been ongoing for many decades. There is however an urgent need for programmes that have a long term, *preventive* approach to the needs of the poor and focus on poverty *reduction*. Preventive interventions directed toward children have the potential to make a significant contribution to the long-term reduction of poverty.

Psychology and Poverty

Research into poverty has traditionally been considered the exclusive domain of economists and poverty has been largely described in terms of inadequate incomes and low levels of consumption. In the recent past however, various indicators of human development have been identified that include health and nutrition, education and literacy, school enrolment, drop-out and completion rates, employment, gender and empowerment issues (Human Development Report, UNDP, 1997). Thus addressing the needs of the child in poverty goes beyond merely addressing economic phenomena and extends to the social and psychological realities that attend this condition.

Using the behavioural sciences to understand poverty is particularly compelling, given the observation that the development of children and adolescents growing up in adverse circumstances has been found to lag behind age peers from more advantaged homes (see Misra and Mohanty, 2000, for review). Of particular relevance to the behavioural scientist is the finding that the poor experience a unique set of psychological barriers to change and development (Sinha, 1990; Arulmani, 2000). The poor do not seem to be equipped with qualities, dispositions, skills, motivations and values linked to upward mobility (and breaking free of the cycle of poverty) when compared with the more privileged. Observers of social inequalities in India, have pointed to an intergenerational perpetuation of social positions (D'Souza, 1981) with adult attitudes of apathy, indifference and withdrawal seeming to be transmitted to the younger members of the community (Dube and Sachdev 1983). Children are as a result inexorably sucked into a 'culture of poverty' and the vicious cycle continues.

Psychologists can play the vital role of developing and implementing interventions that can address an entire range of cognitive, social-emotional and educational consequences of poverty. There is an urgent need to identify the key input areas for the child in poverty

and tease out factors that contribute to the generalisation of positive intervention outcomes in the face of continuous exposure to deprivation and disadvantage. Sporadic though it has been, psychological investigations into the needs of the disadvantaged child have yielded useful insights into the psychological consequences of social and economic disadvantage. The next section of this paper will briefly discuss Indian research into poverty along three points in the developmental spectrum, namely early child hood, middle childhood and adolescence.

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Impact on cognitive functions and development in the early childhood years

Psychological investigations into the impact of poverty on early childhood development have shown general cognitive impairments to be positively correlated with lower socio-economic status. Anjali and Sinha (2000) for example have documented significantly lower opportunities for linguistic stimulation among low socio-economic status two year olds when compared to age peers from middle and higher income backgrounds in an urban setting. Their study confirmed that the child in poverty was also significantly lower on measures of vocabulary, grammar comprehension and expressive language. Reviewing available Indian studies Misra and Mohanty (2000) indicate that poverty has an impact on several other cognitive functions such as visuo-motor co-ordination, immediate memory, and concept formation.

Considerable evidence has accumulated that points to general impairments in cognitive functioning being linked to *under nourishment*. Interestingly however, mere nutritional supplementation does not seem to have an adequate counteracting influence on impaired cognitive functioning. Instead it is high quality stimulation (for example through pre-schools) that has a positive impact on the child's cognitive development (Dash & Rath, 1985; Jachuck & Chatterjee, 1989). Evaluations of the Integrated Child Development Scheme (ICDS) that reaches 21.6 million all over the country, has convincingly shown that children attending anganwadis have a higher level of cognitive development than those who do not attend any Early Childhood Care and Development (ECCD) facility (Mistry, Kaul & Dhar, 1986; Sood, 1992). It is when nutritional inputs combine with psychologically sound, enriched learning environments that gains in cognitive functioning are noted amongst children in poverty.

While there is little debate on the need for enriched stimulation for the young child in poverty, there is considerable lack of clarity as to what are the *essential components* of such a stimulation programme. Dash and Rath (1985) for example have focused on sequencing and discrimination activities. The Anganwadi stimulation curriculum in Karnataka is driven by a weekly thematic approach. Kaul (1993) cautions against the tendency for a downward extension of Std. 1 curriculum into early childhood programmes. A five state study of ECCD facilities suggests that while nutritional inputs are comprehensive, systematic and comprehensive stimulation programmes are rare and most programme implementers are unable to articulate the cognitive, linguistic, emotional

and social-personal targets that the interventions need to target (Lata, D.1998). There is also a need for research on stimulation activities that occur in the multiple child-care arrangements seen in a community.

Further, there is the question of what is the *minimum level of stimulation* necessary to keep a child from slipping in cognitive attainment. The question is particularly relevant when planning alternative ECCD services that may be for just an hour or two in a day and sporadic in an annual calendar of hectic economic or migratory activities for the child's community. Preliminary findings suggest that when enrichment programmes are implemented in the *short term*, children record immediate gains, but quickly slip back to the pre-intervention levels of deficits when the intervention is withdrawn (Sinha, 1990). Anandalakshmy (1990) suggested the need to involve the primary caretaker to ensure the long-term success of an early childhood intervention. Research seems to suggest that unless the child's care takers are educated on the value of stimulation activities and trained in skills for creating stimulating opportunities for their child, the effects of intervention programmes are most likely to be brief lasting. The short-term nature of the gains is highlighted from a study conducted by The Promise Foundation that obtained feedback from 60 ECCD teachers working in the slums of Bangalore. Teachers were asked to identify three high achievers who had passed out of their ECCD facility in the preceding three years. Teachers were then asked to indicate the performance level of these children in the primary school. Feedback was obtained on 96 children. As many as 60% of this sample were showing a steadily declining academic graph (as seen from class rankings or class tests). The disturbing trend of a return to underachievement, two to three years after exit from the ECCD centres has been documented in other studies as well (e.g. The Kaur et. al.1992 study in Bastaar). The early gains seem to get frittered away when the child in poverty enters the next stage of development. A final relevant point from research indicates that the distance in performance levels between the advantaged and the disadvantaged though present, is much less during the pre-school years. The real falling behind begins to occur as the child moves into primary school and beyond (Sinha, 1990).

Difficulties with learning in the primary and middle school years

As in the case of pre-school children, the academic performance of older children in poverty are found to be lower when compared to those from more privileged backgrounds. Positive correlations have been reported between low socio-economic status and low school enrolment, irregular attendance, high drop out rates and a poor academic record. Agarwal et. al. (1987) in a study of 6 to 8 year old rural children reported lower levels of performance on comprehension, memory, verbal reasoning and short term memory measures. Saraswathi and Datta (1990) reported lower social problem solving for day to day issues resulting from a life in poverty. It is important that educational failure and learning skills deficits noted among children in poverty are examined more comprehensively.

The urgency for responding to the issue of school-related success for the child in poverty arises both from the numbers who need to be addressed and the crisis of an education system that is floundering for want of a child-responsive strategy. It is estimated that approximately 110 million children are out-of -school (Mishra, 2000) and these are almost exclusively children who live in poverty. Even among those children who are in school, the dropout rates are extremely high. Our studies reveal that close to 40% of children studying in Corporation and Government schools in Bangalore city drop out of school at Class 4 (Nag-Arulmani & Arulmani, 1996). A widespread belief is that children do not study, because they have been put to work. The Public Report on Basic Education in India presents data to the contrary (PROBE, 1999). According to the study, school drop out and never-enrolment of children in five states (Bihar, Himachal Pradesh, Rajasthan, Madhya Pradesh and Uttar Pradesh) was linked to the *attitude* of the child's *parents* towards education. When either of the parents, especially the mother, was literate, the report found that families were willing to send their children (including girls), to school. The key issue then is the *viability* and *quality* of the schooling opportunity that is offered to families in poverty. While a significant amount of resource has been directed toward *boosting enrolment* into primary school, attempts to improve the *quality of teaching-learning* in education services (mainly Government and Corporation schools) have only been sporadic. It is not surprising then that poor in-school learning environments coupled with the child's own impoverished home and socio-economic environment leads to academic under performance and failure. Our surveys across about 1200 parents of children who have 'failed' at Class 4, indicate that parent motivation to keep the child in school, goes down when school-centred education results in the child failing (Nag-Arulmani & Arulmani, 1996). Instead, the child's role gets re-defined as the caretaker of siblings or a helper with domestic and farm work (particularly in the case of the girl child), as well as a worker who contributes to the family income. This could signal the beginning of child labour and ultimately to the child remaining trapped in the cycle of poverty, when s/he grows up into adulthood.

An important target for psychological interventions would be to focus on enhancing the quality of the teaching-learning environment that the child in poverty is a victim of and build up his/her learning skills. There is an urgent need for research on responsive teaching methodologies that take into account the cognitive profiles of children in poverty. The language discontinuities between home and school, the nature of the script that is the medium of instruction and the 'pedagogically induced' reading difficulties are some of the issues that have been receiving some attention in the last couple of decades (Nag-Arulmani, (in press), Mohanty, 2000). Indeed, success in school would not only mean access to knowledge (an important human development indicator), but would also *prevent* the consequences of continuous failure experiences on emotional health and personal development. The impact of failure on the child growing into adolescence is highlighted in the next section.

Poverty and the development of adolescents' cognitions

The literature seems to suggest that poverty has a powerful impact on a range of socio-personal variables that influence adolescent development.

A number of studies have reported positive correlations between socioeconomic status and adolescent *self-esteem* and indicate that adolescents in poverty consistently score lower on measures of self-esteem (Bharsakle & Srivastava, 1991; Kapur, 1991). Characteristic differences are also seen in *motivational patterns*. Lower socio-economic status adolescents demonstrate low internal and higher external control orientation with a higher reliance on significant others, God and luck for success (Sinha, 1994). Disadvantaged adolescents tend to have low and stagnant levels of aspiration coupled with low achievement needs (Pareek, 1994). Studies of *attribution* found that adolescents from higher SES backgrounds were more likely to attribute failure to luck, while disadvantaged individuals were more likely to attribute success to luck and assume greater personal responsibility for failure (Misra & Misra, 1986; Misra & Jain 1988). An interesting and useful finding is with relation to the impact of socio-economic status on the adolescent's *time orientation*. Findings indicate that low socio-economic status adolescents are characterised by a short-term orientation to the future. Their beliefs reflect a lower emphasis on making long term plans such as preparing for a career (Agarwal & Tripathi, 1980; Misra & Misra, 1986; Chandra 1997). Finally, studies examining the impact of poverty on *adaptive behaviour* have pointed to a lack of self-direction amongst disadvantaged adolescents (Gunthey & Sinha, 1983) with lower levels of task persistence, a higher tendency to give up the task more quickly and higher expressions of helplessness, (Pal & Dixit, 1989; Srivastava & Lalnunmawii, 1989).

Taken together, these studies indicate that a typical psychological profile appears to differentiate the disadvantaged adolescent from those who are more privileged. It seems possible that underlying cognitive structures, beliefs and attitudes could lie at the heart of the low SES adolescent's retarded social mobility and difficulties with status enhancement.

Disadvantage: A cumulative impact?

The studies discussed above, when linked across the developmental spectrum raises the possibility that disadvantage could have a cumulative impact as the child's maturation progresses. Deprivation in cognitive stimulation in the early childhood years creates a disadvantage in learning foundations almost at the outset. Given the impoverished school environment, the learning skills disadvantage the child carries up from earlier years can only worsen in the primary and middle school years and is manifested as educational failure. Later in the developmental sequence we find that these deprivations are further accentuated during the high school years (adolescence), with the addition of motivational and attributional factors. It seems possible that this accumulation of disadvantage as the child moves from one developmental stage to another, could ultimately result in the individual remaining trapped in the vicious cycle of poverty.

A specific theoretical framework is used below, to better articulate the deeper impact of poverty on the child's psychological development.

Social Cognitive Theory: A Useful Framework

An important criticism levelled against psychological interventions into poverty is that these studies have remained discrete with little or no effort going into theory driven interpretations and integration of the findings (Mohanty & Misra, 2000). Albert Bandura's Social Cognitive Theory has emerged as a useful framework for understanding the diverse ways in which the development of personal efficacy occurs and the influence of a network of socio-cultural and socio-economic factors on life trajectories. Particularly relevant to understanding the impact of poverty on the child's development is the social cognitive mechanism of *self-efficacy beliefs*. This section of the paper will use the self-efficacy construct in an attempt to interpret and integrate the Indian psychological studies discussed above.

What is self-efficacy?

Bandura (1977a) defines self-efficacy expectations as *beliefs about one's own ability to be successful in the performance of a task*. Bandura has been able to demonstrate that self-efficacy cognitions determine whether behaviour will be initiated, how much energy will be expended and the duration of the maintenance of this behaviour in the face of obstacles and adverse experiences.

How are self-efficacy beliefs acquired?

Bandura (1986) describes various sources of influence that contribute to the formation of self-efficacy beliefs. Three of these factors are discussed below in the light Indian studies into the child in poverty.

Performance Accomplishments. Performance Accomplishments describe the individual's actual performance on a task and his or her ability to attribute success on the task to personal effort. These accomplishments provide opportunities for mastery experiences (Bandura 1986). Experiences of success build a strong belief in one's personal efficacy and contribute to higher perseverance in the face of adversity (Bandura, 1995).

The studies cited above indicate that an important outcome of disadvantage is the lack of adequate opportunities for performance accomplishments and success experiences. The impoverished learning environments of the child in poverty lead to educational failure. Failures undermine self-efficacy beliefs. Looking at the adolescent years, the literature has suggested that the reinforcing effect of success is not as much as it could have been, because it is not perceived by the disadvantaged young person as emanating from within him/herself. The history of inadequate opportunities for performance accomplishments and multiple failure experiences in the development of competencies could have a

cumulative impact, leading ultimately to a psychological profile characterised by low self-efficacy beliefs.

Vicarious Experience. Going through the experience of watching someone similar to themselves succeed by consistent effort (a social model), raises observers' belief that they too can master similar activities (Bandura, 1986). In the same way, observations of others' failures despite strong efforts, undermines observers' judgement of their own efficacy and lowers their motivational levels (Bandura, 1986).

The studies cited above point out that the role models and thereby the vicarious experiences that low SES children and adolescents in India are exposed to, often reflect failure experiences, with the bitter and defeatist attitudes of adults often being transmitted to the younger generation (D'Souza,1981; Dube and Sachdev, 1983). The family and socio-cultural milieu in which the low SES child grows up is characterised by factors (e.g. low parental aspirations, economic hardship, occupational failure) that could affect their motivation for higher aspirations and goals in academic and professional spheres. The child's vicarious experiences of the failures of significant others around her, in combination with her own lack of opportunities for success experiences could further contribute to lower levels of self-efficacy in the child and adolescent.

Verbal Persuasion. Verbal persuasion refers to the individual being persuaded and encouraged by someone else that they possess the capabilities to master a task. Consistent verbal feedback that questions a person's capabilities would cause him or her to avoid challenging activities and give up quickly in the face of adversity (Bandura, 1995).

In the Indian situation, it has been observed that children in poverty receive much lower levels of encouragement when compared to the more advantaged (Nag-Arulmani & Arulmani, 1996). It is the rare teacher who would strive to persuade the under-performing child to persist toward educational goals inspite of difficulties. The child's domestic environment is further characterised by attitudes of apathy toward success. An environment that is bereft of words of encouragement and verbal persuasion to persist toward success experiences undermines self-efficacy beliefs.

Directions for interventions

Mohanty and Misra (2000) point out that most psychological studies, particularly those dealing with the disadvantaged usually end with suggestions for intervention, but very few get translated into actual practice. The foregoing review of existing research into the predicament of the disadvantaged child reveals that specific points exist along the developmental spectrum where sound psychological interventions could make a significant difference. However, interventions that merely address developmental stage-specific issues are at-risk to creating a situation that does not contribute to lasting change in the lives of the disadvantaged. Locating its arguments within Social Cognitive Theory, this paper suggests that deficits in self-efficacy create deep psychological barriers that

must be addressed at different stages in the developmental spectrum, if long term gains are to accrue to the child in poverty.

The rest of this paper is devoted to a report of The Promise Foundation's attempt at developing and implementing developmentally specific psychological interventions that simultaneously address social cognitive variables, with the view to ultimately empowering and equipping the disadvantaged child to take personal responsibility for the trajectory of her life.

5. The Promise Foundation

5.1. *Who are we?*

The Promise Foundation is an agency that comprises a core group of psychologists, social workers, special educators and teachers, and a national network of specialist consultants that provides services in the areas of mental health, education and potential realisation. The Promise Foundation's primary mission has been to *apply the behavioural sciences* and contribute toward the development of children and adolescents from socially and economically disadvantaged backgrounds.

5.2 *Preventive Mental Health: our raison d'être*

Since our inception in 1987, we have attempted to locate our efforts in the nexus between psychology, poverty and human development. An important hypothesis that underlies our work is the possibility that people from socially and economically deprived backgrounds, have certain unique social cognitive characteristics that contribute to their remaining caught up in the cycle of poverty, generation after generation, in spite of various opportunities being made available to them. Interventions that take a preventive approach are essential if this vicious cycle is to be broken and therefore prevention is the corner stone on which our goals rest. We have found that lasting social and economic development, begins to occur when the poor begin to move away from the position of 'receiver', to a position of s*elf motivated, self-sufficiency*. A foundation of strong *self-efficacy beliefs* is essential if this long-term goal for poverty reduction is to be realised. We describe attempts at influencing life trajectories by inoculating the child against negative social cognitive influences, with developmentally relevant psychological interventions, as *preventive mental health*.

6. The Promise Foundation: A Report of Programme Implementation

The Promise Foundation has developed and standardised programmes targeting *key points* across the developmental spectrum. This section of the paper will present a brief description of these interventions and three outcome studies assessing the impact of these interventions.

Programme 1: Stimulation Intervention Programme (SIP)

      Programme Rationale. The studies discussed above (section 3.1) have indicated quite unequivocally that young children in poverty are at risk for inadequate cognitive stimulation. The Promise Foundation's Stimulation Intervention Programme (SIP) focuses on Early Childhood Care and Development (ECCD). SIP is an intervention designed to provide a comprehensive teaching and caring facility to young children in the age range of 3 to 6 years who otherwise would remain cognitively under-stimulated.

We have found that children who are likely to benefit from SIP have the following characteristics:
a) children who have experienced *physical trauma* that hinders responsive learning (e.g. hunger, pain, malnourishment, physical violence),
b) children who experience *psychological trauma*, that hinders responsive learning (e.g. emotional neglect, verbal abuse, loss of a parent, multiple caretakers), and
c) children who experience *low stimulation* (e.g. both parents working as coolies, child left unattended, child 'plays' outside the house returning only at mealtimes).

      Increasing home based stimulation: Outcomes of an intervention programme.
Our earliest surveys of poor families (e.g. nomadic settlements in rural Karnataka, migrant workers in urban slums), with children below 6 years of age, documented very low home based stimulation activities. The number of toys available, the number of play interactions with adults in the family and the frequency of visits to places outside the immediate neighbourhood were significantly lower when compared to communities of grade four workers in state government services.

A fifteen-month caretaker programme was initiated with the aim of increasing home based stimulation of the 3 to 6 years age group. A total of 25 families using the services of The Promise Foundation ECCD centre, participated in the study. The primary caretaker of the child was the mother in all but two families, where the grandmother took on this role.
The intervention focussed on the role of stimulation in child development and on transferring skills for making low cost stimulation materials. Training sessions were held once a month. The focus was on learning-by-doing with caretakers learning to make toys, which they could then take home for the children.
Changes documented at the end of the fifteen-month period are given below:
a) There was an increase in stimulation activities at home. In addition to hand made toys, parents' willingness to buy low cost toys like plastic balls, rattles, flags and pencils, saw an increase.
b) Parents' spontaneous language activities with the child increased. This included naming objects in the environment, talking about colours, shapes and numbers and encouraging children to speak in complete sentences.

c) Parents began to use locally available material (e.g. flowers, spools of thread, vegetables) for activities they learned during the training programme contributing to the development of cognitive skills such as seriation and categorisation.

Increasing the number of contexts in which the child in poverty can find stimulation was the aim of the project. The most important learning from the project was the effectiveness of the learning-by-doing strategy with caretakers, who themselves live in an impoverished environment.

Programme 2: Programmes for Assisted Learning (PAL)

Programme Rationale. Learning skills deficits and educational failure characterise the development of primary and middle school children in poverty (section 3.2). Drawing from current research in fields such as literacy acquisition, reading development, cognitive psychology and information processing theory, TPF has formulated Programmes for Assisted Learning (PAL) to address the important educational milestone of *literacy acquisition.* PAL targets children in the age range of upto 12 years, who are in school, but whose academic performance is so poor that they are failing and are likely to drop out of school. PAL promotes success experiences with academic tasks. PAL attempts to *prevent* the child from dropping out of school and brings a preventive focus to the problems of child labour. PAL is implemented in corporation schools in South Bangalore directly by TPF teams. The PAL methodology has also been used for children in non-formal education centres and for bridge courses for out-of-school children (Nag-Arulmani, 2000).

Evaluation study of a PAL programme for in-school children. An outcome study was conducted of a school-based PAL programme conducted with standard three children in five Kannada medium corporation and government schools in Bangalore. The study also looked at concomitant changes in *attitude* to academic tasks.
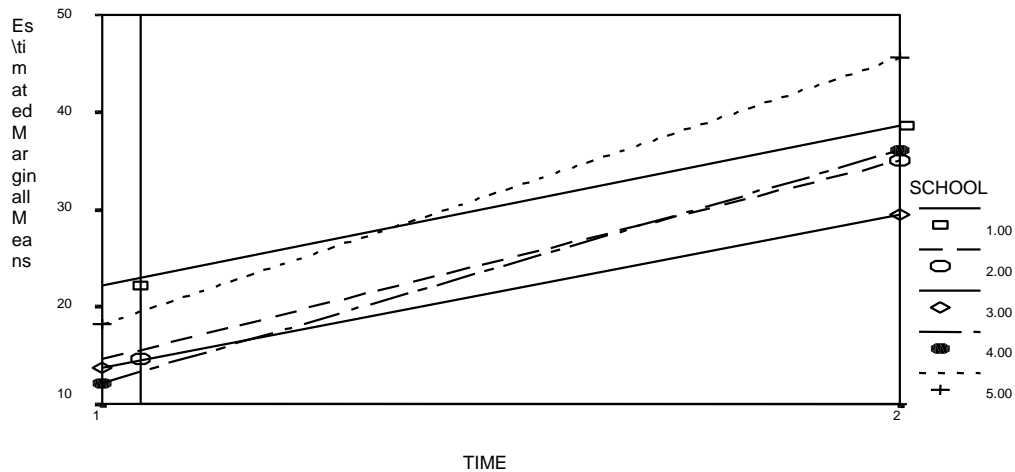
Teachers were asked to identify the children who under performing in the class or those with behavioural problems and those who were likely to drop out.

The Literacy Assessment Battery (LAB), developed at The Promise Foundation was used to establish the class-level on arithmetic, reading, writing and spelling skills of shortlisted children. A total of 129 children who had obtained the *lowest* scores on the LAB were taken into the study. The frequency of PAL sessions was once a week over a period of six months (two academic terms). The student-teacher ratio ranged from 8 to 15 students to 1 teacher.

A pre - post design was used to study the outcome of the intervention. Data is available for 115 children, attrition in sample occurring primarily due to child being absent from school on the post-assessment days. Literacy acquisition was measured through a consolidated score on graded tests for reading and spelling. A measure of the child's attitude to academic tasks, was obtained by eliciting reactions (Like, Dislike, Don't Know) to school-based tasks (e.g. reading, writing). Figure 1 depicts the literacy levels at

the start of the intervention, the improvements and the variable levels of attainment seen after intervention across the five schools.

Figure 1
Intervention Outcomes across 5 schools on literacy skills targeted by PAL

TIME

School-wise breakup: School 1 (N = 26), School 2 (N = 17), School 3 (N = 17),
School 4 (N = 29), School 5 (N = 26)

On the child's attitude to academic task measure, school-wise changes are reported in the Table 1 below:

Table 1
Percentage of children reporting '*dislike*' on the
measure of attitudes to academic tasks

Academic Tasks	Taking Dictation		Reading Aloud in Class	
	Pre	Post	Pre	Post
School 1	100%	77%	100%	85%
School 2	100%	88%	100%	82%
School 3	88%	59%	100%	88%
School 4	90%	34%	100%	31%
School 5	96%	34%	100%	46%

The findings suggest that a systematic intervention can improve not only literacy skills but also attitudes to academic tasks. It is proposed that the PAL sessions increased the frequency of success experiences with academic tasks for the child. The source of the success experiences was at two levels. One was embedded in the PAL methodology, where teaching targets match the skill level of the child. The second was the transfer of the skills into regular class activities. Thus with literacy acquisition the child experienced success in the primary task in school, i.e. to read and write. The changes in attitude to academic tasks reflect a greater sense of competence with academic tasks.

There are however a substantial number of children who have *not* shown change in attitudes to academic tasks. These are children who, even though they had moved ahead in their literacy skills, remained substantially behind their class levels. For the children who have fallen behind, the gap continues to widen, even as they start moving ahead.

Programme 3: Work Awareness and You (WAY)

      Programme Rationale. Our investigations into the career development of the Indian young person revealed that socio-economic status was an important factor that influenced career choice behaviour and that characteristic differences existed in social cognitive variables between the high and low socio-economic status groups (Arulmani, 2000). Examining *career self-efficacy* our comparative investigations across socio economic status groups, revealed that high socioeconomic status high school students characteristically demonstrated higher career self efficacy scores than students from disadvantaged backgrounds. The low socioeconomic status adolescent's *short-term view of the future* predisposes them to enter the world of work soon after high school, as unskilled labourers. This places them on a trajectory of chronic unemployment and under-employment. *Career belief distortions* are inaccurate but strongly held beliefs about career development (Arulmani, 2000). We found that low SES high school students obtained a significantly higher career belief distortion score than those from higher SES groups. We found for example that the low SES held beliefs about career development that placed a low value on developing work skills, appearing for and passing examinations, completing high school and persisting toward career goals inspite of difficulties.

      The Work Awareness and You intervention. Work Awareness and You (WAY) is The Promise Foundation's careers education programme specifically designed to meet the career development needs of the disadvantaged adolescent. WAY combines traditional methods of careers education such as aptitude testing and career information delivery, with interventions addressing the young person's cognitive predispositions. WAY attempts to influence the disadvantaged adolescent's career plans such that the young person begins to move on a trajectory toward *gainful employment.*

      Evaluation of Effectiveness. We conducted a study to examine the impact of the WAY programme across time on two social cognitive variables, namely, career self-efficacy status and career belief distortions. The sample was drawn from nine corporation and government schools and comprised an Experimental Group of 165 high school boys that received the WAY intervention and a Control Group of 40 that received no intervention. The sample's self-efficacy and career belief distortions were measured prior to the intervention (T1), immediately after the intervention (T2) and six months after the intervention (T3) to observe to what extent changes effected by the interventions sustained over time.

Changes in career self efficacy scores across time. The Middle School Self-Efficacy Scale - MSES (Fouad, Smith, & Enochs, 1997), developed originally for a western sample, was been adapted, translated and standardised for use in India (Arulmani, 2000). The MSES provides a reliable and accurate indication of students' self-efficacy status for career development tasks. Table 2 below provides the mean scores of the Experimental and Control Groups across time on career self-efficacy
beliefs as measured by the Middle School Self Efficacy Scale.

Table 2
Mean scores (and SD) at Times 1, 2 and 3 on career self-efficacy beliefs as measured by the Middle School Self-Efficacy Scale
Minimum - Maximum obtainable score = 22 – 110
High scores indicate higher self-efficacy beliefs

	Experimental Group (N = 165)	Control Group (N = 40)	t test (df = 203)
T1 Mean (SD)	40.32 (11.67)	41.75 (5.96)	0.75 (ns)
T2 Mean (SD)	73.87 (6.32)	46.50 (4.60)	25.752 (p >0.01)
T3 Mean (SD)	62.23 (13.33)	42.70 (4.99)	9.093 (p >0.01)

The data indicates that Experimental Group and the Control Group began with no statistically significant difference in their self-efficacy scores at T1 (prior to the intervention). At T2 (soon after the intervention) marked increases in self-efficacy were seen for the Experimental Group with was significantly different from scores recorded by the Control Group. T3 (six months after the intervention) showed a decrease in the self-efficacy scores of the Experimental Group.   However the difference between the Experimental and Control groups remained statistically significant.

Changes in Career Belief Distortion across time. The Career Belief Distortions Scale (CBDS) has been developed specifically to examine students' beliefs about career development (Arulmani, 2000). Table 3 below provides the mean scores of the Experimental and Control Group across time on career belief distortions as measured by the Career Beliefs Distortion Scale.

Table 3
Mean scores (and SD) at Times 1, 2 and 3 on the Career Beliefs Distortion Scale
Minimum - Maximum obtainable score = 20 - 140.
High scores indicate higher negativity in beliefs pertaining to career development activities

	Experimental Group (N = 165)	Control Group (N = 40)	t test (df = 203)
T1 Mean (SD)	100.87 (11.70)	100.55 (5.81)	0.169 (ns)
T2 Mean (SD)	47.30 (4.51)	96.70 (6.47)	- 56.572 (p>0.01)
T3 Mean (SD)	70.81 (25.92)	98.97 (5.85)	- 6.816 (p >0.01)

While the two groups under study began with no significant differences in their career belief distortion scores, it is observed that after the intervention at T2, the Experimental Group recorded a marked reduction belief distortions. Although an increase was seen at

T3 the Experimental Group continued to record significantly lower belief distortion scores than Control Group.

This study indicates that the WAY programme does have a positive impact on the social cognitive variables influencing the career development of low SES high school students. It is particularly important to note that while sharp gains are seen immediately after the intervention (T2), these gains are prone to suffer a loss across time. However, the overall gain persisting six months after the intervention continue to place the Experimental Group ahead of the Control Group indicating that the programme effects are likely to survive long enough to effect changes in the individual's career development.

Conclusion

The most pernicious and destructive aspect of poverty is not merely that some people are poor, but that children in poor communities are affected by the conditions of poverty such that the group as a whole continues perpetually to live at the bottom of the scale. Economic interventions that have targeted the *visible* and *physical* aspects of the outcomes of poverty has done little to address *negative mindsets* that shackle the poor to the vicious cycle of poverty. If the intergenerational perpetuation of poverty is to be broken, the life trajectories of the *children* in that community must be influenced. Children in poverty are victims of the paradox of having to acquire competencies and skills in an environment that repeatedly thwarts the acquisition of these skills and competencies. It is here that the role of the psychologist becomes overwhelmingly important. As demonstrated above, interventions that target the cognitive, emotional and social development of the child, could go a long way in helping to change the trajectory of the child's life path.

We conclude this paper with the re-telling of a famous story. A group of very poor people lived on the sea shore of a country. Their grandparents had been poor, as had been the parents of their grandparents and their parents. Poverty had been the constant companion of this sad group across generations. Much had however been done by the rulers of the country to help these people climb out of the pit of their poverty. They were given food, clothing and shelter. Indeed the rulers of other lands seeing the plight of these poor people also began to send them gifts and offered relief of various kinds. The poor were thankful for the gifts but once the gifts ran out, they needed more. Nothing *really* changed. The years rolled on. Children were born, they grew to adulthood, they too needed the constant support of their rulers and the community remained poor. Until one day a strange person appeared amongst these poor people. This person had no gifts to give, no relief measures to offer. All this person had was a large, neatly rolled bundle. "You don't need others to feed you," the person said. The people were astounded. "What are you saying?" they cried. "Without aid, without reservations and without subsidies, we will die." The person smiled and said, "The answers to your freedom lie within you. Follow me and I will show you." The person took the people down to the seashore and there on the sand unrolled the bundle. Some of the young people were given one end of the bundle to hold firmly and then to everyone's amazement the person picked up the rest of bundle and flung it into the sea! Nothing happened for awhile.

Then suddenly, "Something is pulling" one of the young people holding the ends of the bundle cried. "It's becoming heavier," shouted the other. "Now is the moment", the person cried. "Pull it in… pull it in." Soon gleaming on the sand, their scales sparkling in the sun, lay dozens and dozens of fish. "Food… enough and more for all of us," the people sighed in wonder. "Yes", the person said quietly, "and all you need is a fishing net. All you need to do is to learn to fish. And you can get your own food!"

The time is well nigh for the behavioural sciences to take a more proactive role in the arena of poverty reduction. Who other than the psychologist is better equipped to deal with negative mindsets, develop skills, facilitate the realisation of personal potentials, prepare the ground for self-reliance and indeed equip children in poverty to transform the trajectory of their lives?

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