normalizing activation for the profoundly retarded and/or multiply handicapped

A need for a change orientation
The tragedy of the unactivated
The challenge of the Scandinavian experience
A North American counter-challenge
How is activation to be achieved?
  Physical therapeutics
  A movement-oriented educational curriculum
  Emphasis on younger children
  Operant shaping
  Developmental materials
  Special developmental environments
  Developmental role perceptions
  Interrelationship between activating measures

Activation action

Conclusion
A need for a change orientation

In all fields, frontiers come and go as new frontiers replace old ones. But the rates at which frontiers emerge vary from field to field, and vary within a field from one epoch to another.

In this chapter, I want to write about a frontier in fields concerned with severe physical impairments, especially mental retardation and cerebral palsy. To many readers, it may come as a surprise to hear that mental retardation was a dynamic and change-oriented field between about 1850 and 1920, because thence forward, it lay dormant and stagnant for almost forty years. This stagnation was due to the dissipation of dynamism during the frenzy of the so-called genetic alarm period (circa 1890-1920), when it was thought that mental retardation was the mother of all social ills, and could destroy our society.

In the early 1950's, dynamism slowly began to return to the field, and bold leaders began to sketch new frontiers for action. A frontier then, but a commonplace now, is the provision of special education for the mildly retarded. A more recent frontier has been the provision of educational services for the severely retarded, and although the decisive battle here has been won, sizeable mop-up operations remain. One of the most recent frontiers on which the battle has only joined in the last few years is the reform of residential services. Other examples of the expansion of our frontiers may be familiar to the reader.

Most men do not anticipate the future, but yield to it – often grudgingly, belatedly, and inadequately. Yet today, for the first time, we are reaching the point where we can bring the accumulation of a considerable and ever-increasing body of knowledge and understanding about the process of change itself to bear upon our destinies. No longer is it necessary to have change happen to us, or to let it be imposed upon us from without. We can rise up from within to meet new challenges in an anticipatory fashion.

In one’s own field, can one not survey the frontiers, articulate the events taking place at its edge, interpret them sensitively, and formulate the challenge posed? Can we not anticipate and lead, instead of procrastinating, and finally being pushed? Of course we can! And in a number of areas, the indicators and omens are rather clear.

I will have the boldness to attempt here to define one of our frontier challenges – but I hasten to state that nothing I am about to say originates from

I am indebted to Rosemary and Gunnar Dybwad, Karl Grunewald, Una Haynes, Elsie Helsel, Robert Kugel, and Robert Perske for substantial critiques of earlier drafts of this paper.
me. It has been said and even done; but it has not been adequately articulated and broadcast, and that will be my goal.

The frontier I speak about is what the Scandinavians have called ‘activation’. Activation not only refers to the involvement of persons in meaningful, and hopefully normalizing activities, but to a significant degree, it also implies motor involvement and ambulation, or at least mobility.

**The tragedy of the unactivated**

Today, in almost all of our traditional mental retardation institutions, and even in some newer residential centers, we can see ‘acres of beds’ filled with individuals who are not ambulatory, who spend virtually their entire time in bed, and who – for the most part – are profoundly retarded. Sometimes, a superintendent may challenge his staff to ‘get them out of bed’, but the staff may be so little attuned to the growth potential of the retarded or non-ambulatory that little more may be done than to transfer the resident from the bed to the floor. When the next challenge to ‘get them off the floors’ is issued, the nonambulatory residents may be placed on raised, table-like, platforms. But neither on floor nor platform may the resident be activated any more than in his bed. Even placement in wheelchairs may lose most of its meaning if it is not accompanied by additional measures.

Some interesting data have been provided by a number of studies. Unfortunately, they involve public institutions only in the United States, and I have not been able to locate equivalent studies for Canadian institutions. Thus, in a survey of 22 Western state institutions (Payne, Johnson, & Abelson, 1969), 24% of the 24,257 residents, or an astounding total of 5,943, were found to be nonambulatory. Remarkable also was the fact that the nonambulatory population was reported to be as low as about 2% in one institution, and as high as 96% in another.

In a survey of 26,000 residents of New York state institutions for the retarded (Rosenberg, 1969), 46% were judged to require ‘substantial medical or nursing care’, 24% had to be bathed or dressed, and 14% could not ambulate independently.

A rather detailed survey (conducted by Craig Affleck, and reported in Governor’s Citizens’ Committee, 1968b) of 1,908 residents at Nebraska’s only and rather typical state institution for the retarded revealed a degree of behavioral inadequacy that is startling (see Table 1), especially if one considers that at least 77% of the residents were classified as above the profound level of retardation, and that less than 5% were below five years of age.

**Table 1**

**Behavioral adequacy of residents at a typical midwestern state institution**

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Total</th>
<th>Considerable</th>
<th>Some</th>
<th>Little</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooming</td>
<td>32%</td>
<td>6%</td>
<td>7%</td>
<td>14%</td>
<td>42%</td>
</tr>
<tr>
<td>Dressing</td>
<td>30%</td>
<td>8%</td>
<td>10%</td>
<td>13%</td>
<td>39%</td>
</tr>
<tr>
<td>Eating</td>
<td>13%</td>
<td>2%</td>
<td>3%</td>
<td>9%</td>
<td>73%</td>
</tr>
<tr>
<td>Bath-Shower</td>
<td>41%</td>
<td>6%</td>
<td>8%</td>
<td>8%</td>
<td>37%</td>
</tr>
</tbody>
</table>

124
The report also revealed that 4% of the residents included in the survey could not even sit up, 7% could sit up but not stand, and 3% could stand but not walk. Only 72% could negotiate stairs unsupported. Most tragically, perhaps, was the finding that 48% of the residents never left the ‘ward’, and only 30% left it regularly, and for at least four hours a day. These percentage figures assume special meaning when one considers the number of individuals involved, and the congregation of these large numbers of individuals into large groups. For instance, most of the individuals who cannot sit up (4%, which translates to 78 persons) were found in two living units.

There has been relatively little or diminishing controversy that much could be accomplished with the mildly, moderately, and even severely retarded residents of our institutions. Especially in recent years, there has also been growing awareness that a much larger percentage of the ambulatory severely and profoundly retarded could be toilet trained. (For purely historical reasons, toilet training has become somewhat of a fixation of behavior shaping approaches). However, when it comes to the nonambulatory retarded, especially the nonambulatory profoundly retarded, there still prevails widespread acquiescence to the inevitability of their helplessness. Also, one encounters the attitude that the normalization principle loses its applicability as one deals with more severely impaired individuals.

Indeed, some well-meaning analyses in recent years have even contributed to this fatalism. For instance, a number of writers in the last few years have documented that institutional admissions have tended toward younger and more seriously impaired individuals. However, rather than sounding a call for extra measures of activation to meet this challenge, most of these projections implied a need to prepare hospital-like wards for permanently invalid and helpless individuals, many of whom were expected to spend their lives hovering near death.

To many, death came swiftly and – in the circumstances – mercifully. The magnitude of the death rate upon admission, though incredibly high, has received very little attention in the field – perhaps because the reality was too unpleasant to contemplate. For instance, in a recent review (Kurtz & Wolfensberger, 1969), it was found that children’s mortality in the first year of institutional residence was sometimes near 50%. On the other hand, a time trend study (Tarjan, Brooke, Eyman, Suyeyasu, & Miller, 1968; Tarjan, Eyman, & Miller, 1969) suggested that even when younger and more handicapped persons are admitted, first-year mortality can be reduced sharply, apparently as a result of more aggressive medical treatment policy. Thus, high death rates do not have to be accepted as inevitable concomitants of resident characteristics.

The challenge of the Scandinavian experience

We have so much to learn from Scandinavian services to the retarded that an irrational defensive ‘Scandinavian backlash’ can sometimes be noted. At some professional and even parent meetings, one merely has to make a reference to the Scandinavian model to feel a wave of resentment, or to note members of the group ‘tuning out’. Indeed, this is the kind of chauvinism which Dybwad (1969) discussed as one of the roadblocks to change and

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2 There is reason to believe that this trend has stabilized (Wolfensberger, 1971).
progress. We must be sensitive to the possible existence of such chauvinism within us, and combat it lest it interfere with our quest for self-renewal.

On my visit to Scandinavia in 1969, I experienced some new and profound insights, even though I had seen literally dozens of slide presentations on Scandinavian services, heard Scandinavian leaders talk, and had interacted intensively with them on a personal and collaborative basis (e.g. see Bank-Mikkelsen, 1969; Grunewald, 1969; Nirje, 1969a, 1969b). I saw both activation and normalization carried to degrees I had not believed possible, and I can only conclude that for the vast majority of persons professionally ‘raised’ in North America, no amount of verbal and pictorial communication can equal the learning – almost conversion – impact of a visit to Scandinavia. Some critics who hasten to point to weaknesses in the Scandinavian systems – and I believe some rather obvious weaknesses do exist – fail to recognize the overwhelming reality of the pervasiveness of activation and normalization. Thus, the pictures one sees at the Scandinavian travelogue lectures are not isolated examples and showcases; they are rather typical and actually quite inadequate documentations of the scenes one encounters again and again throughout these service systems.

Activation is merely one of many expressions of the ideology of normalization. But to see the normalization principle implemented, especially via activation, demonstrates that the Scandinavians do not merely have ideas and ideals, but have proven on a broad scale that this state of mind can be converted into concrete external realities.

The fact that profound retardation need not be so extensively equated with immobility was poignantly brought home to me by observing a particular living unit in a Scandinavian institution which was actually rather backward by Scandinavian standards. In this unit, 60 of 68 adult residents were not toilet trained, but only one was chronically bedfast, and about twelve were wheelchair-bound; the rest were ambulatory. A situation such as this would not be particularly remarkable in Canada or the United States – except for the fact that in this institution of 650, these were the most retarded and impaired persons to be found.

When visiting Scandinavian institutions, I made a special point to seek out the living units for the most problematic and retarded persons – the kind of living units every administrator feels a bit uneasy about. In one modern institution for over 350 residents, visited in mid-afternoon, I searched high and low but found only three persons lying in bed. Even in a larger and more traditional institution of approximately 1,000, there were only about 20 residents in bed, and most of these were sick that day. There were many more who were nonambulatory – but they were up and about in wheelchairs, walkers, sitters, standers, and what have you, doing things and going places. In some living units, it was hard to get about – because of all the wheelchairs and special devices. Acres of full beds replaced by acres of activation equipment!

Also of interest was a policy in some institutions of distributing nonambulatory residents around the various buildings, instead of concentrating them into one unit. The rationale for this is twofold: concentration of the most helpless residents into one area creates an attitude of defeatism and apathy in the staff, as we so well know; and dispersal among ambulatory residents brings the nonambulatory person into a more normalizing atmos-
phere where he is both expected and apt to participate more, move more, and perhaps become ambulatory or at least mobile, without necessarily affecting the normalization of less handicapped residents.

Another result of both normalization and activation in Scandinavia is noteworthy: one will no longer see the enlarged heads resulting from hydrocephaly. Today, operations are performed in virtually all cases before the head enlarges. What a contrast that is with our attitudes which, to this day, devalue such operations for the retarded or presumed retarded, and with the results of these attitudes: rows of beds with helpless persons, grotesquely enlarged heads, grievous bed sores, and progressive deterioration; all this leading to the creation of major and expensive nursing problems, lack of learning in the child, and deprivation of social acceptance, potential mobility, and often even of life itself.

A North American counter-challenge

I found it remarkable that the Scandinavians could achieve so much ambulation, mobility, and normalization even without the application of operant conditioning which we have come to look upon as our only or major tool in improving the competence of the severely impaired. Furthermore, while much work is done with children, the Scandinavians, like ourselves, have only begun to exploit the plasticity of early childhood for developmental purposes.

These observations have led me to conclude that even the Scandinavians are nowhere near the limit of what can be achieved. Therefore, I have formulated a bold -- perhaps foolhardy -- challenge to ourselves: to perceive and embrace a concept of activation which includes as a major goal the virtually total abolition of immobility, and to a large extent also nonambulation, of the profoundly retarded and multiply handicapped.

Furthermore, I feel that the facts justify the conclusion that the service system which will combine operant shaping techniques, activation, normalization, and intensive emphasis upon the young (age 0-6) impaired child will see successes of a degree beyond our power to conceptualize at this time. Among these successes will also be the prevention of intellectual retardation in many severely cerebral palsyed children; and the raising of intellectual functioning of many young retarded children by one, two, and perhaps even more levels (a level having a range of about 15-16 IQ points).

Is this an unreasonable prediction? The Scandinavians with whom I discussed it did not think so, and on the abstract level, most North American workers would probably agree, too. I was amused by the fact that some of my Scandinavian friends, basking in the glory of their programs, seem to be looking over their shoulders with some unease. As one of them put it: 'Once the Americans discover what can be done, and put their energy and money to it, they will not merely catch up with us, but overtake us, and even finally leave us far behind.'

I believe this view has much validity, and that we can bring this state about. However, all of us, and Americans in particular, must divest ourselves of a widespread 'American delusion' that money alone is the solution to all problems. With all the money in the world, we shall achieve nothing unless our ideology tells us what to do. I have seen one attendant sit and stare from behind a glass wall at a vast day room with 50 children milling
purposelessly, and I have seen the same scene with seven attendants sitting
and staring. Money for 50 attendants would have yielded no additional
benefits – because there would have been no ideology to convert the money
or the manpower into beneficial action and tangible results.

Perhaps for the first time, we now have some comparative data to support
objectively some of the impressions gained by visiting Swedish mental retra-
dation services. The mental retardation office of the Swedish National Board
of Health and Welfare has recently conducted a national survey of move-
ment-impaired retarded persons in 161 residences for the retarded all over
Sweden (Wallner, 1970), accommodating a total of 12,338 persons. Only
382 persons were defined as 'bed-lyers'. Even among these, 34% got out of
bed at least 6 hours a day, 24% got out 7 hours, and 17% got out up to 8
hours. Only 126 (33%) never left the bed. Furthermore, 117 (31%) were
below age 10, and only 37 (10%) were above age 60, bearing testimony to
the effects of activating programs earlier in their lives.\(^3\) When these figures
for a population of 8 million are compared to figures which I happen to
have available on Nebraska (with a population of 1.5 million), we find that
Nebraska has a rate of approximately 0.00024 bed-fast or bed-near retarded
persons, versus 0.000048 for Sweden, \textit{i.e. five times as many} at a comparable point in time. I would not be surprised if more precise comparisons
revealed a difference that is even larger.

It seems fairly evident that Scandinavians have virtually solved the prob-
lem of non-mobility. Why do we have so many people who see no alterna-
tives to our current practices? Thus, more than money, we shall need an
ideology, an attitude, a conviction, a determination!

\textbf{How is activation to be achieved?}

Some approaches to activation have been mentioned above, and obviously,
intensive environmental enrichment and systematic developmental program-
ing are the general means of activation. However, seven specific vehicles
will be elaborated below. These are physical therapeutics, a movement-
oriented curriculum, emphasis on younger children, operant shaping, develop-
mental materials, special developmental environments, and developmental
role perceptions.

\textbf{PHYSICAL THERAPEUTICS}

In the last decades, our institutions have usually laid claim to a medical
model without being able to deliver either the needed quantity or quality of
medical services. An example – if any is really needed – has already been
cited: the almost incredibly high mortality rates of those persons newly ad-
mitted to institutions, especially of those admitted at an early age (see review
by Kurtz & Wolfensberger, 1969). To give another example: in 1962,
George A. Andrews conducted a survey determining the availability of
various therapies to the multihandicapped residents of our institutions. He
concluded that two-thirds of the institutions were providing mainly custodial
care for such persons (cited in Stimson, 1967).

Paradoxically, now that we are moving away from medical and toward

\(^3\) Higher mortality in Sweden can almost certainly be ruled out as an explanation for
the low number of inactive aged.
adoption of developmental models, we may be able to include in them a medical component of adequate quantity and high quality. Within this medical component, outstanding glory can be earned by what I will loosely call 'physical therapeutics'. By this, I mean primarily orthopedics and psychiatry, and related areas such as orthotics and physical therapy.

Orthopedic surgery has been widely withheld from the retarded because of judgments that such surgery was 'wasted', particularly for the severely and profoundly retarded. In part, this was a very dehumanizing value judgment; but in part, it was also an accurate empirical judgment because of the lack of appropriate therapeutic follow-up without which surgery is largely meaningless.

One major aspect of such follow-up consists of the design and supervised use of devices which enable, support, enhance, or encourage sitting, standing, walking, mobility, and other adaptive behaviors. Turning frames prepare for standing and can enhance educational participation of the totally nonambulatory. Corsets, braces, and orthopedic shoes develop erect posture, sitting, and standing, as do various types of chairs such as 'relaxation chairs'. Cut-out, stand-in, and standing tables, as well as standing stabilizers support or develop sustained standing behavior and thereby prepare for walking. Walking aids include suspension devices, skid walkers, infant walkers, C.P. walkers, walkerettes, and diverse types of gliders and crutches. A multitude of wheeled equipment, such as specially designed 'belly-boards', velocipedes, tricycles, and trainer bicycles provide playful mobility as well as excellent activating experiences to children. The ways in which wheelchairs for adults can be modified appear to be limitless.

The list could go on. There is nothing new about any of these devices — except that one does not see them used very much in retardation, and even less so with the young and/or severely damaged retarded person. It is time to introduce to the field of mental retardation the ingenuity practised in the mainstream of orthopedics, orthotics, and psychiatry, and to correlate — even integrate — these aspects closely with other medical and behavioral measures.

Another aspect of follow-up is physical therapy. Here, we not only need 'more'; we need a new model. Because of manpower shortage, the physical therapy needs of the retarded may be neither met nor meetable via traditional methods of practice. What is probably needed are large numbers of technicians working under the direction of qualified therapists who themselves rarely engage in direct therapy, except for teaching and demonstration purposes. Also, physical therapists must begin to become effective consultants to educational programs, and thus 'multiply' themselves indirectly.

Young children and the multiply handicapped have the most urgent need of physical therapy. An early investment here will repay itself manifold.

A MOVEMENT-ORIENTED EDUCATIONAL CURRICULUM

Our educational programs must revise their curricula so as to introduce much more movement and rhythmics. I do not mean to imply that we should eliminate present teaching content and methods, but that we should both add to it, as well as revise our methods so that content now taught with little utilization of perceptual-motor processes is taught in more extensive association with them. Many such methods, and even entire systems, exist. However, such methods have often been developed and described in isolation
rather than in a systemic context, and the systems themselves have often been idiosyncratic or dogmatic, thereby scaring away many potential users.

For instance, many creative methods have been developed within the Doman-Delacato system, but its quite unnecessary theoretical framework, the questionable nature of this framework, the dogmatic isolation of the system, and its advocacy of certain (actually, a very small number) techniques generally held to be ineffective or possibly even harmful has driven away many potential users. The materials and methods developed within the Kephart system have suffered from unnecessarily close association with the concept of brain injury. One of the more promising approaches appears to be that of Barsch (1967), whose term 'movigenics' I am tempted to apply broadly to what I have called a 'movement-oriented curriculum'. Another term and concept I find useful is Asher's (1969) 'total physical response technique'.

One of the major ways of fusing traditional content with physical activation is via the introduction of music, song, and eurhythmics. Musical rhythmics has the advantage of being not only exceedingly activating, but also very enjoyable. However, it would have to consist of more than the undisciplined movements our teachers tend to accept uncritically in the typical musical action exercises observed in our classrooms. Increased and more systematized use of music is one of the latent, undiscovered giants of North American education.

EMPHASIS ON YOUNGER CHILDREN

The younger the person, the more effective are activating measures likely to be. Virtually everybody agrees to this, but far too little is done about it. We still exclude severely retarded children from programs because they are not toilet trained, or for the supreme absurdity: because they are not old enough. There still lingers the myth that formal programming should wait for some type of 'natural' maturation process to have run its course; and somehow, the largely coincidental legal school entry age of ordinary children is still widely perceived as the minimum age for initiating formal programming for the severely impaired.

Activating programming must begin as early as developmental retardation or impairment is recognized. For many types of learning, there exist sensitive or even critical periods, and a year's intensive activation at age two or three may be worth two or three years at age eight, or a lifetime at age twelve.

Here is where the rapidly developing early childhood education movement in North America could out-perform the Scandinavians who provide relatively little early programming to retarded children outside of institutions. Within these institutions, early programming focuses more on social and physical development; it is not yet deliberately and consciously oriented to the actual shaping of intellect.

However, in order to institute intensive early activation, we shall either need better early case findings, or universal early education, or both. Early case findings will require much reeducation of pediatricians and general practitioners. Fortunately, the prospects for universal early childhood education are excellent, and we shall probably see gradual lowering of public education entry ages down to age three, and perhaps even two.
OPERANT SHAPING

While operant and related principles have usually been present in inarticulated form in all good programming, they are only beginning to be formally recognized in Scandinavian services. Yet, with its pragmatic ideology and methods, operant shaping – and especially the version elaborated by O. R. Lindsley – is an approach of vast potential. We now have adequate foundations in this approach, so that it could be massively injected into our service systems. However, we must address ourselves consciously to using operant principles in a way which minimizes artificial elements and features, and which are not only normalizing but also normalized.

Furthermore, we must be aware of the danger inherent in a merely superficial faddish and ritualistic application of operant principles. Today, many programs pay lip service to operant principles, and purport to apply them, but the staff may lack understanding of and training in such principles, or commitment to them. Thus, their work can only be described as constituting desultory and cavalier dabbling in operant shaping, and can be harmful to the entire system which may be judged and condemned because of the failure of its unskilled application. Also, proponents of operant shaping systems must recognize the limitations as well as the strengths of these techniques, and the need to employ additional means, even if these are not yet (or even ever will be) as operationally specifiable as the parameters which have prominence in operant conditioning.

DEVELOPMENTAL MATERIALS

Many new and good developmental materials have been introduced in just the last few years, but more are needed. Also, their existence and use must be communicated better. Educational material centers in the US must give up their roles as relatively ineffective and passive depositors and exhibitors of materials, and assume the role for which they were largely created, namely that of evaluators and experimenters. Indeed, considering the vast sums of money expended on them, they have the responsibility of becoming innovators!

So far, innovations in educational materials have come largely from overseas. An interesting recent event was an industrial design conference which was held in 1968 in Finland, where students invented, designed, and built toys and equipment intended to enhance the learning of cerebral palsied children. Others invent, and then we copy, manufacture, and market, often ten years later – in the case of Montessori materials, fifty years later. One would think that our vast materials market could also inspire and support more innovation.

Of course, materials should be developed not as an intellectual exercise, but to a purpose. We not only need to invent more devices and gadgetry, but to use what we have.

SPECIAL DEVELOPMENTAL ENVIRONMENTS

Examples of special developmental environments are the prototype playground for the retarded designed by a Canadian (Hayden, 1969) under the auspices of the Kennedy Foundation, the ‘model recreational park’ depicted
in the 1968 report of the President's Committee on Mental Retardation, and Heather's (1970) playground garden. Another example is an experimental residential and learning environment designed by the British architect Bayes, as presented at the 1969 convention of the National Association for Retarded Children. Also, a number of operant living (e.g. Roberts & Perry, 1970) and workshop environments (e.g. Gardner, 1971) have been designed and described in the literature. Such experimental models need to be extended, made routinely functional, and applied to even the most severely impaired (e.g. Ricke, McDaniel, Stallings, & Gatz, 1967).

On the horizon are automated environments which conjoin the potentials of operant shaping, environmental engineering, and computer technology. The 'responsive autotelic environment' ('talking typewriter') developed by O. K. Moore has been an example of a step in this direction, as is the PLAY-TEST system developed by B. Friedlander, which automates the shaping of infants' behavior right in their own cribs.

DEVELOPMENTAL ROLE PERCEPTIONS

One of the major facts established by social psychologists is that people generally will play the social role that is assigned to them. Social roles can be demanding, and can motivate individuals to virtually 'rise above themselves'; or they can be degrading or indulgent, and elicit only a fraction of the behavioral potential of a person. Indeed, role expectancies can even reduce a person so that he will function far below a previous level.

In the past, we have imposed extremes of role expectations upon retarded (and often other handicapped) persons. We either demanded normal role performance in all or most aspects of functioning, or we imposed dehumanizing or at least very undemanding expectations, as when we viewed a retarded person as an 'eternal child'. To this day, the vast majority of child development and special education programs for the younger retarded are merely advanced baby-sitting, compared to what could and should be done. All this must change!

To change the unrealistic developmental role perceptions that have been common in our service systems during the last forty years will be most difficult unless we take radical measures. To do this, we must distinguish between higher expectancies, and normal ones; we must distinguish between various areas of functioning; and then we must impose realistically high and occasionally normal expectancies on selected areas and selected individuals. We must endeavor that with the aid of our services, the handicapped attain their potential, and we must formulate roles for them that discourage dependency and encourage growth.

Perhaps one of the major ways of achieving this goal is to integrate the physically handicapped with the physically sound, and the mentally retarded with those of higher functioning. Instead of putting all the nonambulatory together into one sea of beds, we should experiment with dispersal of the nonambulatory among the ambulatory, and impose mobility upon the nonambulatory even if this sometimes means no more than wheelchair mobility. As expectations rise, so will performance, growth, and independence.

We are rather apt to view Scandinavian socialism as leading to pampering, and as imposing low expectations in regard to work and initiative. Yet when it comes to making the retarded ambulatory, the Danes and Swedes turn
almost fierce in their determination – but their successes prove that their high expectancies for mobility and ambulation have not been unrealistic.

INTERRELATIONSHIP BETWEEN ACTIVATING MEASURES

An element which is implicit in virtually all of the mechanisms of activation is individualization of approach. Thus, gadgetry and therapeutic appliances may have to be individually designed, fitted, and used; some activities and exercises have to be planned on an individual basis; schedules of activities will have to vary greatly for different persons; etc. This need for individualization has certain secondary implications to our residential centers where the majority of the severely multiply handicapped retarded live. One of these implications is the need for small living units, in order to prevent the otherwise virtually unavoidable – almost ‘natural’ – tendency to regiment large groups, and to manage them according to their lowest common denominator.

Of major importance is the intermeshing of all aspects of activation. These various aspects are not merely additive, but often profoundly interdependent. Thus, orthopedic surgery without physical therapy is largely wasted; physical therapy without orthopedic surgery cannot attain its potential; failure to combine both of these approaches with general environmental enrichment, especially via education (in the broad sense), is grossly inefficient; and so forth.

One issue is particularly timely, and that is the integrated use of physical therapy. Physical therapy practices are still heavily influenced by the polio era, when a major challenge was the strengthening of muscles in individuals who were generally of sound mind. With the passing of this challenge, a new major one today is posed by individuals of severely impaired mentality and with brain injury, who must develop control and coordination of movement, and not merely muscular strength. Even less than for the polio victim, it is not enough to provide physical therapy for them in the typical isolated settings, in special rooms, and at special times. Having a limb ‘pumped’ or ‘cranked’ sporadically by a therapist is of little avail to them. If physical therapy is to be fully relevant to them, it must become a part of daily living, and therefore must be practised by all those who work with the handicapped person, particularly teachers. A commitment to such a conceptualization would imply a profound change in the functioning of much of our physical therapy personnel, and many other workers.

By incorporating a heavier movement element and emphasis into our other educational approaches, we are not merely adding content, and not merely adding economy by combining the learning of motor and other elements; we are also reaping the benefits of growth in those perceptual-motor processes which underlie or even constitute what we call intelligence. Many of these processes, though both essential and shapable, have been neglected in our traditional approaches.

Another by-product that can be expected from activation is a strengthening of the body image. In turn, this should result in increased self-confidence and better emotional adjustment.

After reaching its limits, physical therapeutics may still leave the person without having attained full and independent mobility. In such cases, we must strive not merely to maintain the highest level of mobility, but to maximize other kinds of activation and development. For instance, in Scan-
dinavia, I saw many severely retarded nonambulatory children attending school on special beds, in wheelchairs, and in standing tables. In some cases, these devices were intended not so much to be physically therapeutic, but to permit other developmental activities to take place. One device was a hoist that could be rolled about, and that could be used to hoist a nonambulatory person from his bed by means of a variety of special-purpose slings, roll him over a bath tub or toilet, and thereby permit him to perform his own toileting or bathing. Such persons we would see in bed with a bedpan, washed with a sponge, or — if 'fortunate' — washed on a slab like a corpse. The hoist and its accessories permitted such persons to gain the dignity of learning to perform these highly personal functions independently and in private.

Much as physical therapeutics can be a means for shaping mentality so that a multiply handicapped child attains his full intellectual potential, so can lack of physical maintenance produce a tragic mental debilitation.

**Activation action**

Fortunately, there are stirrings on the frontier of activation. Some of these have been mentioned, and a number of others are apparent.

Increasing concern with physical fitness of the retarded: here, an entire new movement had its origin in Canada, especially with Hayden (1964). This movement was taken up by the Kennedy Foundation in the United States, and the Harry E. Foster Foundation in Canada, and has resulted in many developments including the Special Olympics movement. This emphasis has also stimulated the American and Canadian Associations for Health, Physical Education, and Recreation to become very involved in the area, and to issue a series of highly useful publications which are concerned with activating procedures and methods.

A relatively sudden increase in the number of publications concerned with the movement-mediated development of retarded or otherwise handicapped persons: in Europe, perceptual-motor and movement-related approaches to education have been part of the educational mainstream for over a century. These approaches typically involve a great deal of rhythmics and gymnastics — not only to a degree unknown in North America, but also tied to a large number of developmental theories and sub-theories. We are beginning to rediscover the importance of these approaches which previously probably had their most effective proponent in Seguin (e.g. Talbot, 1964).

An increased attention to the physical therapy and orthopedic needs of the young and profoundly retarded: unfortunately, advances along these lines often occur in an unbalanced fashion, underlining the lack of understanding that many persons have of the interplay between developmental areas. Thus, I have seen institutional programs where outstanding work was done in corrective and orthopedic surgery — in the virtual absence of a physical therapy and environmental enrichment program which would have brought to fruition the orthopedic investment. Nevertheless, the many fledgling trends on all horizons about us are encouraging harbingers of a whole new vista.

**Conclusion**

A phrase much-heard in Denmark refers to certain older retarded persons as 'casualties of the pre-1959 era', because it was in that year that the new
ment retardation services act went into effect. In analogy, our own unactivated are the victims of the pre-1970 era. At this time, at which we are so apt to introspect about our past, and attempt to fathom the future, will we make commitments to the newly-perceived challenges of activation, or will we some day speak of the casualties of the pre-1980, or pre-1990, or even pre-2000 era?

In concluding, I want to reemphasize one point: the activating measures discussed in this paper do cost money, but the reason money has been unavailable has not been scarcity of money itself, but poverty of ideology. And we have no right to ask for generous allocations from the public unless we possess powerful and positive ideologies capable of inspiring, supporting, unifying, and directing effective programs.

I could argue that we should embrace activation of the severely damaged merely because it appears that more can be accomplished than we ever dreamed; and/or because reduction of dependency would result in long-range economic benefits. But I would prefer to close with a quotation from an 1847 letter (see Talbot, 1964, p. 67) by the New England reformer and educator George Sumner to Samuel Howe, in regard to Seguin’s ‘activation’ work: ‘There is nothing either visionary or impractical in the attempt . . .’ and ‘for republics, it is an imperative duty, the necessary result of the principle on which they are founded, and by which they are sustained — the principle of justice, that accords to everyone, not as a privilege, but as a right, the full development of all his faculties.’