The author discusses potential problems and benefits for learning disabled (LD) students in the year 2000. Considered are developments in three areas: human engineering (such as the role of amniocentesis in prevention of disabilities), education (including new audiovisual technology and a restructuring of secondary education), and human possibilities (such as increased flexibility, mobility, and cooperation). (CL)
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Introduction

Being here at this TACLD 12th Annual Conference is a marvelous experience. As one who has attended almost every conference up until now, I share the joy of the planners and designers who have brought us to this moment in time and to this period of achievement. In Jewish life a boy becomes a man at age 13, but I think that TACLD has certainly achieved an early growth and has really reached maturity in spirit and in achievement.

The topic on which I am going to speak is one about which I feel extremely confident. If my predictions turn out to be wrong, who is going to dispute them? If any of you in AD 2000 would like to argue any point, you are going to have to find me first. Meanwhile, I have the joy of being a prophet.

When we talk about AD 2000, we are considering just a little over two decades. The first graders about whom many of you are concerned may well be married and have children of their own, children who may be of some concern to them. Besides, they may have the added problem of an older parent who is giving them some dilemmas--and that parent may be you! The child who is now an adolescent learning disabled child will be in the 40's and will probably be well charted on some life course. The present generation whom we are now regarding are, many of them, the children of the baby boom babies. They are a smaller generation of young people and will have an added responsibility of carrying a big generation of older people. Therefore, we should have some compassion for this particular group of young people whom we now regard as learning disabled.
What will their world be like? How will they handle the problems which arise? These are the concerns which all of us share in this day and this moment in time. Perhaps most important is what their internal world will be.

For this great and magnificent journey into the future is a trip into the pulsing, wondrous mystery of the human psyche. No discovery in outer space can outshine the travels of man into the innermost cavern of himself.

And this, then, may well be the theme of this discussion. As we grow, as we mature nationally in the next two and a half decades, we may achieve a civilization where well-being of all people is of paramount concern, where the phenomenon of labelling is replaced by a universal emphasis on learning for living.

Let us talk today about what might be dilemmas or possibilities in three areas: A. in human engineering, B. in human education, and C. in human development.

**Human Engineering**

Genetic engineering poses many problems for us. Suppose that amniocentesis (the process of taking fluid from a pregnant woman's uterus and testing it to see if the baby is "normal" or not) may well mean that a woman will find out in early pregnancy whether or not she is carrying a child who has "minimal brain dysfunction" or some type of brain damage. What then? Aldous Huxley's Brave New World is far from fiction. Man for the first time has the tools with which to recreate himself and maybe to make corrections in genetic deficiencies. We are facing a new science of predictive medicine with control over our own lives.

One writer has said that physicians may soon become scientific fortune-tellers.

And this brings us back to one of the big issues. Who shall decide who shall be aborted? What if amniocentesis shows mild disorders?—Would we run the risk of aborting people like Dostoevski, whose epilepsy may have been
genetically caused or Lord Byron, who was clubfooted? Or our own special child who may have M.B.D.?

Will we trade I.Q.'s for G.Q.'s, that is, intelligence quotients for genetic quotients? Will everyone in A.D. 2000 have a genetic quotient which will address his capacity as a person and his worth? Will we become a nation of "supermen" with only the fittest surviving over and over and over and over in exact replicas of one another? And now here is another great question. What about situations which are now considered disabilities but which may be turned into abilities in future years? Or, what of possible corrective measures? Dr. Michael E. DeBakey, the famous heart surgeon, has said that genetic engineering should result in the reduction of various kinds of deformities. He also feels that effective treatment and eventually cure can be expected for many crippling disorders. He says that in the future citizens are going to be much better informed about the mechanisms of their bodies and that a new kind of health care will be available on a primary, secondary, and tertiary basis. With all of this medical knowledge at hand, many now baffling disorders including minimal brain dysfunction may become minor or non-existent in our world of the year 2000.

Both genetic and environmental influences are going to play upon our children in the year 2000. Through complex co-action and interaction they will help to demonstrate the differences in human behavior and the developmental processes. It will not be a case of one or the other but of both working together for better human beings. Personality is not absolutely fixed at any age in life. The "healing influences" of others and the growing processes of life show that there is a capacity for recovery and renewal in child or adult. How does all this add up so far as our children with learning disabilities? An article by Leon Kass in Science magazine
stated that one obstetrician said "The business of obstetrics is to produce optimum babies." But, he adds, that the price to be paid for the "optimum baby" is a transfer of procreation from the home to the laboratory. Such an act, according to him would keep human parenthood from being human. In Dr. Kass' article, he says that the family is really becoming the only institution where a person is loved because he is, not because of what he does. Home is also the place where a person learns values, a sense of continuity, and a sense of personhood. The continuity of life is best expressed within the family, and for this there have to be many human emotions and much human input which do not come from test tubes. Dr. Joseph Fletcher in The Hastings Center Report says that he does not want to see applied genetics destroying our capacity for support and compassion for those who don't measure up to our norms. I think this is a great concern which all of us want to consider.

Finally, Dr. Kass sums up in his article, "In the long run, our hope can only lie in education; in a public educated about the meanings and limits of science and enlightened in its use of technology; in scientists better educated to understand the relationships between science and technology on the one hand, and ethics and politics on the other; in human beings who are as wise in the latter as they are clever in the former."

This is the task to which we assign ourselves as we look at some of the issues in genetics as well as in education. Now let's see what education can be or might be for our special children with learning disabilities in the year 2000 and what some of the great minds have said about the possibilities that will exist in education and what education may become.

Educational Possibilities

Recently it was my pleasure to interview Dr. Maxwell Jones, who has been,
known over the years for his development of the therapeutic community and other fine programs in the field of mental health. He said to me that what he really wanted to talk about was not mental health movements or some of the other programs with which he had been attached but that his consuming interest at this time was in the problem-solving skills of children. He said that life moves so rapidly that content cannot really be taught but that the only thing the children can learn and learn early in their school lives is the ability to solve problems. With such skills, according to Dr. Jones, other problems can be met and dealt with as life changing and as new occurrences take place. This statement is a hopeful one for those of us who have been concerned about children who have special problems with learning. What it says is that we may assign ourselves the task in the future to find new ways of teaching. As our ACLD motto says, "These children can learn if we can learn how to teach them." Perhaps in the future education will be less circumscribed, less programmed, less defined within limits. The hope for the future is that many modes of learning may be open and available to our children. It is possible that some of the new educational technology, singly or in combination, may be of great help to our children in their learning processes.

Technological forecasting may be difficult. However, there are possibilities of a central audio-visual library available to individuals by telephone dial. Think what that would do for a child who has a problem reading symbols. Other possible developments are the micro-book and the micro-cinema. Again, what might this do for our children? Still another possibility is community multicable television. How beautifully might our children learn from such a technique. Although there would be many applications for such developments, some special ones might come to children who have problems with the traditional kind of learning which so many of our children evidence. Thus, we can see
that in the year 2000 there may well be educational implications which are beyond our imagination as of now.

The Bureau of Research at the U. S. Office of Education has been concerning itself with some possible futures. A group at the Stanford Research Institute in Menlo Park, California has been working on various ideas for the future and has published a number of position papers. One of them is entitled "Alternative Futures and Educational Policy." In the published report, researchers write that although there are a number of possible future histories, all of them will require some kind of dramatic shift of values and perceptions with regard to what they term the "world macroproblem." They state, and we would certainly agree, that if indeed the world macroproblem is represented, its solution is the paramount societal task before us. In suggesting ways of dealing with the problems, they say that a new concept of education is demanded and that this new concept includes development of the attitudes conducive to survival of human civilization and overall high quality of life. The holistic view of education expressed by this group is not the kind, they say, in which knowledge is fragmented into isolated academic disciplines. Thus, we are viewing education which takes in the whole person as he exists and as he functions in his society. The research group has pointed out that even our universities are not equipped or trained to look for the whole in people but rather are devoted to technological cures for human problems in small and disparate manner.

As this group continues its recommendations, they state that an effective environment needs to be extended outside of the traditional classroom to include the entire life space of the student— the out-of-doors, the inner city, the social institutions, and the mass media. Think of what this could mean for children with learning disabilities. How marvelous it would be if philosophy
did indeed include learning by any means that a person could learn, anywhere, anytime, and anyhow.

In their view of a direct attack on the world macroproblem, the research group states that there should be thinking and appreciation of human diversity from the primary grade. They speak of a holistic, future oriented, transdisciplinary, problem centered, change oriented study of human problems for an understanding of complex wholes and historic parallels. They speak of open, pluralistic education to meet varied needs with divergent processes.

Perhaps one of the most appealing statements is that a fundamental change needs to be made in regard to the sorting and labelling function of the school and its interference with educational function. They speak of the support of the child as a person, apart from his competences or lack of them, in order that he can be encouraged in his natural desires to learn about and make sense out of his environment. They have said that the old departmentalized, compartmentalized knowledge presentation is not suitable for education in the future. And, many of us may add that it has not been suitable for education in the present either.

Other statements about educational planning for the future may be found in a book entitled Educational Planning in Perspective. An article by Dr. Beresford Hayward, states that the next step for education is helping people to reach higher levels of psychic development because such infantile development as many people exhibit is destructive and unnecessary. Dr. Hayward feels that many of the types of work which people do may call for physically underdeveloped people who can work within the kind of routine that the jobs offer. And then he raises a question on how much reorganization of schools can take place in a technological society operating largely on principles of infantile obsessionalism and primitive aggression. Education, says Dr. Hayward, could
take the lead in making some serious inquiries into what it might take to develop psychic maturity in people. Into the implications of those requirements for society's various institutions are the practical possibility for bringing about the changes which would be suggested.

Think what a marvelous challenge this might be for "our children," who will be taking the leadership roles in our society at that time.

In still another article entitled "The Knowledge Base In Education," Dr. Hayward discusses the coming need for a new type of teacher recruitment. He says that in developing these mature people, the teacher training itself would include programs for the development of self-understanding. He suggests that the adults whose lives will be so closely intertwined with the development of young people must themselves throughout their lifetimes be in process of positive development. Here we see echoes of Dr. Jones' statement. The author continues by saying that the study of human development shows that individual and self-regulated education is really the most efficient of all. Wouldn't our children thrive if they could be in an atmosphere where this was really practiced?

The consideration of children's development, says Dr. Hayward, includes wide differences in pace and style underlying "internal" growth. He says that the rhythms of these are individual and uneven. Some of the implications which are stated are these: 1) Individualization in the education process. Dr. Hayward feels that students, even very young ones, should be free to choose their own curricula and school activities. At the same time, he feels that caring adults and good teachers should be able to set curriculum goals and to help develop various kinds of pathways for the children.

2) The next trend which Dr. Hayward recommends is the pedagogy of non-competitiveness. He considers the elimination of practices which emphasize interpersonal competition among children and youth and which are destructive. (But
what would the people who asked for stricter educational methods say to that?)

3) The third suggestion is that the school is a total "environment" for learning. The four parts of this are a) the "climate" of expectations of the teaching staff, b) the school and community as social environments which contribute directly to the educating process, c) curricula and materials chosen to maximize freedom of student choice, and d) teaching in such a way as to lead students towards self-teaching and towards social group mutual teaching.

4) The fourth implication stated is that the teacher is creator of the school environment. The author points out that the child responds to human relationships and his growth depends on these. We have learned this from what we know of the studies of Rene Spitz and others concerning deprivation. In this way, it would be the teacher's major task to make a life long effort to acquire a thorough technical knowledge of the human growth process and to appreciate the young persons' need for responsiveness and freedom.

A number of studies which have been conducted by James H. Block and interpreted by Benjamin S. Bloom, consider the possibility that educational policy makers might consider what effect on the students there might be if schooling were developed in which successes in learning, adjusted for their own timing and learning style and built one upon the other, would be the central school experience.

Can you imagine this as a reality in the year 2000?

In such a setting, the school as a social organism will exist. There will be the use of group processes within the school. Students will be teachers as well as students, and we have learned a great deal about the value of peer teaching and peer learning. Schools and communities would have ill defined boundaries, but they would draw upon one another and all the richness of the community would be available to students in the schools. By the same token,
the community could become the school, particularly for the lower age group levels. In this way the formal school commitment could be divided among a number of organizations, such as libraries and laboratories. Many other adults would be recruited for the teaching function.

How do you think our learning disabled children would function in a setting like that?

Many of the programs which we have discussed have to do with the young secondary child in school. Those of us who have seen the learning disabilities program through these dozen and more years know that we are now faced with the problem of the first generation of recognized learning disabled young adults. All of us are all too aware of the needs in the secondary years and beyond.

Let's look some more at the year 2000 and what some of the forecasters have to say.

The Stanford group has said that pressure for restructuring of secondary education will continue. They speak of job skill obsolescence and of the need for alternating arrangements of work and schooling instead of the sequential kind of arrangement of what they term "learn now work later." They feel that a new generation may demand even more drastic restructuring of the organization to combine some of these efforts.

The very uncertainty of the futures, according to the Stanford group, will emphasize the development of much flexibility and ability to cope with varied conditions. They say that this implies an emphasis on the ability to gain new skills over the acquisition of any particular skill. Vocational programs as we know them would be altered totally. Because human characteristics are so diverse, the implications are for education toward a pluralistic society in which individual differences are not deplored or resented but are valued. I am now quoting from the report, "Given the uncertainties of the future, we need
to cherish different standards and life-styles." It is pointed out that there is no such thing anymore as a single line life-work and that flexible, multidimensional people are badly needed. In-service training at all levels needs to be developed. Dr. Hayward affirms what the researchers have said. He says that a modern technological economy demands a fluid and adjustable labor force capable of changes in work and career several times during the working life. He feels that our ideas about careers are going to have to be altered profoundly. He foresees encouragement rather than career penalties for engaging early in economic work rather than in school. He feels also that schools could take the lead in recognizing and rewarding outside experience within educational institutions and programs.

What we are seeing, then, is a coming educational process that will develop self-growth and maybe most importantly self-esteem in a kind of inner security which will be built into the teaching and the learning so that young people, even those with some disability, will feel themselves a part of the whole and a part of the learning process and will be indeed, free to learn in any way that they are able to gain perspective and problem-solving competence.

Possibilities in Human Condition

Human Possibilities. We have looked at what the year 2000 might mean in terms of some of the genetic possibilities. We have seen what might occur in the field of education to make life richer and more meaningful for children with learning disabilities. Let’s simply look in human terms at what we might find in the year 2000. Overall, if the changes in education that we have discussed do come about, we should have a society where there is a great deal more flexibility, mobility, and cooperation than now exists. For the child with learning disabilities who is not learning at the same rate or in the same way as his peers, this can provide a way of life which will be characterized by both achievement and
acceptance. The view is shared by many people.

One of these is Andrei Sakharov, who provided an article for the future edition of the Saturday Review World. He says, and I quote, "I am certain that the 'super-goal' of human institutions and that includes progress, is not only to protect all those born on earth from excessive suffering and early death but also to preserve in mankind all that is human; the joy of spontaneous work with knowing hands and a knowing mind, the joy of mutual health and of good relations with people and nature, and of the joy of learning and art."

He concludes his article by saying "I believe that mankind will find a rational solution to the complex problem of realizing the grand, necessary, and inevitable goals of progress without losing the humaness of the humanity and the naturalness of nature."

This, then, is what we are about, it is not? What we are seeking for the future, for our children, for those persons loved in our lives, is a life which can have within it the elements of self-actualization, goal direction and a profound sense of caring for those who have less than we. A Greek philosopher has put it thus, "When those who have not been injured become as indignant as those who have, we are moving toward a sense of justice." It is to this sense of justice that I hope all of us, including our learning disabled children, will direct our major efforts.

In case you think that my predictions and hopes are too optimistic, I have to admit both that I am from a mental health foundation and also that I feel that hope is probably the greatest human ingredient existent. A surgeon who works with terminal cancer patients wrote an article on how he discovered the difference between calling a terminal patient incurable and calling him hopeless. The surgeon, Dr. John Stuhlen, said that many people can live with the idea of incurability, but no one can live without hope.
The Pulitzer Prize winning author and micro-biologist Rene Dubos has put it thus in a Saturday Review article looking toward the year 2024. He says "I am inclined to believe that the next 50 years will witness a more humane and more original approach to life." Dr. Dubos feels that people in the future will concern themselves about a better environment of all kinds and states that there has never been a lasting retreat from the recognition of a natural right of man. He feels that the cultivation of a sense of place will become increasingly important in the decades to come.

Then he concludes by saying that whether we are looking back to the "good ole days" or ahead to the future, we have to know that the world has changed and will continue to change. Dr. Dubos says that he rejoices in most of the changes because "I believe that we cannot be fully human without seeking new experiences—the adventures of the spirit as well as of the flesh... Homer and Shakespeare will remain meaningful to us, simply because the passions they portray will remain the passion that moves the world."

What does all this mean to our learning disabled children? It means that by the year 2000, if we are wise, if we are vigilant, if we do indeed work toward the possible changes in genetic knowledge, in education, in the basic humanity of person to person, we shall be able to reach one another across the differences of race or color or disability and be human together in a world which will know both peace and love. I pray that these predictions become reality.

Our philosophy and our hope have been expressed eloquently by Antoine St. de Exupery, as follows:

"A rock pile ceases to be a rock pile the moment a single man contemplates it, bearing within him the image of a cathedral."

It is to the image of this cathedral of learning for our special children now and in the future that we dedicate ourselves at this conference.

Thank you.
Resources


Joan Lewis, Utopias As Alternative Futures (Menlo Park, CA.: Stanford Research Institute, March 1970); Supported by the Bureau of Research U. S. Office of Education, Washington, D. C. 20202


Saturday Review World, August 24, 1974.