

Flashbacks: Reminiscences from 40 years with the J.P. Das Developmental Disabilities Centre

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They say a great deal of water has flowed under the bridge since I came to the Centre for the Study of Mental Retardation 40 years ago. Even the name has changed from CSMR to DDC (Developmental Disability Centre) and from DDC to JP Das DDC. A lot of water has flowed under the bridge; the bridge is [thus] about forty years long. Early years, middle age, and later years is a generic way of dividing history of a personal nature and the same applies for an organization. I'll go through the periods of the history of the Centre but assure you that it won't be a long and boring account.

I arrived in January, 1968; the temperature was -30 that evening. I couldn't understand what -30 was like until I landed in Montreal and a friend picked me up and hosted me for two or three days to introduce me to the snow and cold, but there it was only -7 or -8. He treated me with a pair of rubber overshoes and a parka and sent me off to Edmonton.

A lot of snow has fallen since that January evening. As I was quite naïve about snow and cold, having had only a very brief experience of snow in Nashville, where I spent a year in 1963, I had no image of the experiences awaiting me at -30 weather. Anyway, I couldn't walk with the snow boots, they were wobbly. I made my first trip from the guest house in Athabasca Hall to the Education Building (now the Education South building), and made my way up to the 7th floor where the Centre had exactly one room, divided by a movable partition into two parts; on one side was a desk and chair for me, and on the other side was the secretary's desk. I thought, "Where have I landed, is this the Centre? Or is it perhaps a back room and the Centre must be an institution somewhere else in this big building." No, this was the Centre and the

acting Director of the Centre was a senior professor in Educational Psychology, a true Albertan and former hockey player, who knew practically nothing about the type of research I was going to do. I was going to apply for a grant to do some work on polygraphs; "Oh, Polygraph?" I said: "Yes, to look at attention in children with mental retardation." But even before that, I would work on attention as in the Stroop Test or Visual Search, searching for a target on a screen, the target embedded in a sparsely or densely populated distractive field; and I was to measure the reaction time of children with mental retardation and compare that with normal children.

I wrote a grant application for NSERC in Ottawa. I knew it would take some time to get the money if I succeeded in the competition. In the meantime, I had to begin work on a related project. So I organized, with the Psychology Department, equipment for reaction time, hooked it onto a touch-screen on a computer. In those days that was a novelty, and who in the department of Educational Psychology knew how to use a touch-screen or hook up the reaction time equipment to a computer? Steve Hunka; he also knew enough about polygraphs. He was a pioneer in computer-assisted instruction, many will agree! In fact, there was an old polygraph somebody else had stopped using; I borrowed time on it, just to run a study. So that is how I started big -- two research assistants given to me by the Director who grudgingly granted the request, puzzled that this guy from a little university in the eastern part of India wanted to have two research assistants working for him at the same time, within a week of his arrival, and wanted yellow writing pads!

The Early Years

During those first ten years (1968-1978), the team of scientists at the Centre consisted of me and the Director, a fatherly figure, Don Cameron, who was not a researcher. But we had a very unique advisory committee of interdisciplinary scholars and citizens for the Centre. In fact, it was that committee which had evaluated my credentials and invited me, sight unseen, from my old alma mater in Bhubaneswar, India.

The advisory committee provided the interdisciplinary backdrop for the Centre. There was a neurologist, a pediatric geneticist, a media person, a gynecologist, and a person from Education who later served as President of the University. Oh, yes, I shouldn't forget the most colorful person on the advisory committee, Pat Austin, an imposing figure from Physical Education. I slowly gathered other people to work with the Centre. One of the advisory committee members, the pediatric geneticist, Peter Bowen and I hit it off right away. Then, among the Education people, I picked up two colleagues, and a colleague from Physical Education. Gradually the Centre's researchers grew in number within the next ten years. I think we had some five researchers and a post-doctoral fellow, as well as graduate students. Psychology, Physical Education, Pediatrics, and Educational Psychology were the disciplines represented on the research team for the Centre.

Soon a new director was to be appointed because the old one wanted to step down within a year. We had an excellent pediatric biochemist who took over the Centre. He was completely supportive of my research. By that time, I had acquired an NSERC grant, gotten a sound-proof and electrically shielded room built, a polygraph, and contacted two prominent sources that provided service for people with mental retardation; one in the city, Winnifred Stewart School, and the other, the School Hospital in Red Deer.

So the team started to work. Some of the resulting research appeared in good publications. My own work produced a few noticeable papers in international journals, such as the *British Journal of Psychology*, *British Journal of Educational Psychology*, *Journal of Educational Psychology*, and the *American Journal of Mental Deficiency*. Some of the others published in their own professional journals, including the *New England Journal of Medicine*. So it was a respectable start and when the pediatrician director stepped down I was asked if I would like to be considered and I thought about it and said, "Yes," mainly because a couple of my friends had asked, "Do you like to have resources under your control, or do you like to wait on somebody else's decision to have the resources of the Centre?"

It was not a bad decision because the grants from different sources could keep the research alive. I could keep on choosing associates for the Centre. My graduate students got the benefit of the team at the Centre, and I am proud to say that, within the first ten years, some of the students who graduated with their PhD did become quite well known as academics. I, along with David Baine, then a young assistant professor, produced a second book during that time, *Mental Retardation for Special Educators*. It was an interdisciplinary book, chapters from pediatrics, experimental psychology, vocational guidance, and our own work with attention in children with mental retardation. As well, Gerry Kysela extended the community connection of the Centre by establishing the Early Identification Program, which included individuals with Down syndrome.

Also, that was the time, my first decade at the University of Alberta (U of A), when we had a significant foundation laid for an innovative theory of intelligence. In 1975, I and two of my graduate students published the foundational paper on Simultaneous and Successive Processing in *Psychological Bulletin*. It broke new ground. The same year, I visited Moscow University to work with Professor Luria, whose theory had seminal influence on the formulation of our innovative model of how people process information in two fundamental ways: In patterns and in sequences.

Within the first ten years, as well, I received grants from NSERC and Canada Council, now called Social Science and Humanities Research Council. I and my students researched topics that were hardly confined to mental retardation. Our research expanded to include intelligence and intellectual diversity, for example, between high and low socioeconomic status children and malnourished children, to observe the effects of malnutrition on cognitive processing. The research locations were in Montreal, India and Sri Lanka. During that period as well, a significant boost to our research came from my visit to Moscow and Leningrad, sponsored by the Canada-USSR academic exchange program. I cannot go on to the next decade without telling a humorous incident from the Moscow trip.

I gave my first presentation in Luria's lab in Moscow. It was in November and it was cold in Moscow like it was in Edmonton. The gathering was in the typical clinic room that Luria used to see patients and explain to us what he was observing. In that room, I think during my third or fourth day of the visit, I was asked to talk about mental retardation in Canada as well as a little bit about our work at the Centre for the Study of Mental Retardation. As I got up to speak on that cold November day and was fumbling with my overhead tables of factor analysis, Professor Luria asked me, looking at the window to my right, which was open, "Should we treat you as an Indian or a Canadian?" Mind you, these were days of Breznev and communism was still very strong. How should I answer this question? So I looked at him, puzzled, and he said, "Well, if you are an Indian we'll shut that window; if you are a Canadian, we'll leave it open as is." There was a big laugh among those who understood English, which not too many in the group did. So I said, "Please treat me as a Canadian." Later, when I was asked to write a special article on Mental Retardation in Canada that got published in their *Journal of Defectology*, the premier journal on mental retardation in Russia, I found a footnote in my article on the first page which introduced me as "Professor JP Das, an Indian researcher now working in Canada." It was interesting how the Russians never forgot your ethnicity.

Second Decade, the Middle Years

Flashbacks include a NATO conference organized in 1979. You may not know that the North Atlantic Treaty Organization is not only a military machine but also a cultural organization in some of its aspects; it funds international scientific cooperation among the NATO members. I was bold enough to propose a conference on *Intelligence and Learning* and it was accepted. We held the conference in York, England. My co-organizers were an American and a British person. The American was always organized and practical. The British person was one of my former professors from London, Neil O'Connor, a distinguished researcher in mental retardation, autism, and in general experimental psychology. The conference drew together many of my colleagues in Educational

Psychology at U of A who helped us organize it; among them were Rob Short and the Centre's Research Associate, Fern Snart.

Two funny incidents come to my mind. The conference itself was a spectacular gathering. Actually, you can name most well known contemporary psychologists who were working on intelligence and learning, and you will find they were participants in that conference. As well, among the participants were also people representing the military. Neil O'Connor, one of the main organizers of the conference, insisted that he could recognize at least four generals from the German army. I think only two of them wore their uniforms. Neil O'Connor was a card-carrying member of the Communist Party. People asked me how it was possible that NATO gave us a grant – one of the main organizers was a communist. I admit that the question had crossed my mind when I had first proposed the conference and included Neil's name. Neil said, "Oh, I see no problem there; you know why?" I said, "Why?" He said, "The first time I went to America for a lecturing tour, I was subjected to a great deal of questioning at the airport in New York, including what's my mother's maiden name, but I was allowed in. The second time, the American Army sent me an invitation for a conference they were co-sponsoring, so I must have cleared their security! I expect you won't have any trouble for including me as a main organizer of a NATO conference," and indeed I did not.

I guess 1978 to 1988 was the decade for conferences. The next one was organized in a big way, as well -- we located it in Edmonton. It was the international conference on Theory and Research in Learning Disability, in 1980. Three of us organized it, me, Robert Mulcahy, my colleague in Educational Psychology, and Ted Wall, my colleague in Physical Education. Both of them were active members of the Centre. Again, our students, Fern Snart and Judy Lupart, took a leading role in putting together the conference. Among the participants were well-known luminaries in the field of learning and learning disability, including Barbara Keogh from UCLA, John Hagen and Resnick, Torgesen, John Downing, and two professors from Oxford University, Baddley and Peter Bryant. All of them are still luminaries in the field of learning

disability, including two of our former students, C.K.Leong and Ted Wall.

The Later Years: 1988-1994

Later years should be a time for consolidation and, indeed, the different threads of our work, begun since the early years, had to be woven and became a tapestry. More and more interest that transcended the specific problems of mental retardation began to flower. Spectacular among these flowers was the establishment of the new theory of intelligence that challenged both the traditional theory of general intelligence as well as the established way of measuring general intelligence. First came the theoretical foundation followed by an assessment system that was built on it. The birth of PASS (Planning, Attention, Simultaneous processing, and Successive processing) theory was finally recorded in the book, *Assessment of cognitive processes: The PASS theory of intelligence*, in 1994. Shortly after that, further work on one of the most distinguishing human cognitive processes, planning, became the subject matter of the next book, *Cognitive Planning*. Both of these books were multi-authored, the other authors being either my colleagues or my students.

Assessment must always have a purpose, otherwise it has limited value. With this firm conviction we were compelled to develop intervention programs theoretically based on PASS and try them out, mainly on reading disabled children. More and more work was now being done on reading disability; interest in mental retardation had decreased. It decreased from my point of view because we couldn't identify children with mild mental retardation, the group on which we had based our previous research. They were now found in integrated classes and, for the longest time I thought this was a case of "out of sight, and out of mind," that they were not getting the attention and the services that have evolved through research on the previous generation of children with mental retardation. So the shift to integrate their education, or mainstreaming, propelled us to investigate cognitive deficits in children with reading disability. The course I used to teach on mental retardation was a year long course, not offered for several years now. There were

fewer students available to take the course because of the decline in special schools and special classes for children with mental retardation.

In a way, the Centre kept with the spirit of the time. The intelligence test that challenged traditional IQ tests was published in 1997. It was hard to publish an omnibus cognitive processing test equivalent in its reach and spread to the already-standardized IQ tests because it costs nearly a million dollars! There were only three companies in the United States and, for that matter, in the world, who could invest such a large amount of money on assessment of intelligence. In a way we are lucky to have found one of those three companies. The test was very well received and is still gaining in popularity ten years after its publication. A second revision is on the way.

Further Developments

The past decade of the Centre should be associated with internationalization of its reputation and of the work of the members of the Centre. Many of the graduates and associates of the Centre had left to become famous in their own right and they, too, had branched off into different areas, although still connected to the Centre--- like a leaf blown away by the wind is still recognizable as a leaf from a specific tree.

The last decade saw a change of leadership at the Centre. Dick Sobsey took over leadership, following my 22-year stint as Director and, within a couple of years of his directorship, he made a move to associate my name with the name of the Centre: A generosity and kindness that came from his heart to give this proposal. In a way, this was a sweet surprise. They say an individual's thoughts are a product of the social and historical nature of his or her past life. The thought crossed my mind that, in India, this sort of recognition of a predecessor who had stepped down as head of an academic organization, would be most rare.

Have there been any spectacular happenings since 1994? In my own research team and research area, yes, I followed the early interest that I had in disadvantaged children and even before that, children from low castes and tribes in India. That gave me courage to work with Canadian

Native children and this time in relation to cognitive processing profiles of the First Nations community of children, comparing them with the majority community, who lived outside the reserve and who were not of Native origin. Fortunately, the loss of directorship and retirement from active teaching did not affect my chances of getting National grants and supporting graduate students and scholars. Visiting professors became more common during the last 8 or 10 years. They came from Spain, Japan, and China. The Centre was also fortunate to compete and obtain world famous distinguished visiting speakers through university funding.

I'll end this flashback by bragging about some of these extraordinary scholars who visited the Centre and the University, and enriched our academic lives through their presentations and interactions.

To start with, Professor Hans Eysenck, my PhD guru from London; Arthur Jensen, the man made famous and infamous by his adherence to a particular view of general intelligence; Neil O'Connor, one of the two or three professors who had great influence on me from my London days; Reuven Feuerstein, the psychologist scholar and activist from Israel; Peter Bryant, a leader in child cognition from Oxford; Uta Frith and Chris Frith, who have distinguished themselves in relating the brain to conditions such as Autism, Dyslexia, and Schizophrenia; Jerry Carlson and H. Carl Haywood, my long-time American friends and co-authors from University of California Riverside and Vanderbilt University; and, most recently, Professor Houcan Zhang, the most important educational psychologist in China.

It is hard to imagine that such a small Centre has done so much through its research and publication and, notably, through its journal, the *Developmental Disabilities Bulletin*. Dick Sobsey's flashbacks would be a continuation of this uncommon record of contribution after my retirement and, in fact, the influence it has had on broader issues of morality and ethics in the field of developmental disabilities. Dick has just stepped down as director this July (2008) passing on the leadership to Rauno Parrila.

Rauno's appointment represents an evolution. He has been associated with the Centre as a student and now as a colleague, gaining full professorship within a very short period of his academic tenure at U of A. We continue to work together and we have shared common students, some of whom have joined our faculty. Their questions and enthusiasm for including me in research projects and grant -writing has kept my brain young and my mind curious.

Spending Summer Mornings with Sudanese Children

When I offered to help a group of mostly Sudanese children, I did what I do best -- to help improve their learning potential. I volunteered three mornings every week for six weeks; that's as long as this summer camp operated. There were 34 children, five- to 12-year-olds. Their parents came as refugees to Canada a few years back. Many of the kids had memories of living in refugee camps in Egypt; only a few among the young ones were born in Canada.

Let me first tell you about my perspective and background relating to cognitive improvement. Before I arrived in Canada, that is, at U of A campus on a January morning as an Associate Professor, I had a history of doing research with disadvantaged children in India, in my home province, Orissa. Since arriving in Canada, I have continued working with the disadvantaged and the mentally challenged, including malnourished children in Colombo (Sri Lanka), Black children in Montreal, Native children in First Nation Reserves, and children of low socioeconomic status in Edmonton. Although the main focus was research because these were SSHRC-funded projects, I believe I was also able to do some good for the children and help the teachers to improve the learning potential of their students. Researchers and do-gooders may live in the same body.

The summer camp started with a village-time breakfast. I got in as some of the kids had finished their breakfast and were engaged in free play with the young volunteers. Some mornings I found a bunch of girls braiding the hair of a young volunteer, giving her an African hair-do! Sometimes a young volunteer would be cuddling a five-year-old! We from the older generation often used to worry about multiculturalism, and ethnic integration. Watching the camp kids and volunteers, the new generation of young girls and boys working with Sudanese children, I wondered how frequently the dark thoughts of racial discrimination would cross their minds.

I used the young volunteers as teachers of the programmes for cognitive enhancement, to train the kids to improve their reading and

understanding of math. I had to make many adjustments in the programmes and would come up with additions to the training tasks the night before, as we went along. It stretched my brain! The programmes were not delivered according to a preset plan; I was released from the constraints of a strict experimental design. But, in the process, going through such organized chaos every morning, the structure and the contents of the programme changed for the better. Ready to be tested and tried within an experimental design!

Oh, the kids - they surprised me, not only with their enthusiasm for doing the tasks, but also for telling me if they found some of the tasks so easy, or boring! I didn't restrict them to doing every task only on their own, allowing them to do tasks in collaboration with others. Did not Vygotsky tell us that learning occurs in collaboration with others?

The kids in the camp elected a "president" and a "vice-president." Forever, I am curious about intelligence and how my cognitive tests work across cultures. Driven by curiosity, I gave the two kids a quick screening to have a rough idea about their cognitive strengths. Indeed, the president had a uniformly high cognitive profile, and the vice-president was not far behind at all, though a bit restless when he didn't like a task! Both were also obviously popular! Who needs tests when this group of summer camp kids were so prescient?

On the last day of the camp, a joint gathering with another group of African children in a different programme was arranged. Amid artwork, fun and food, prizes and rewards, two kids from our camp spoke. Among the names of people who had helped and had fun with them, the name "Dr. Das" was heard more than once. For me, the experience of working with the kids was the reward as it was for the other volunteers; we did not really need any other reward.

Note: The Millwoods Summer Program for Immigrant and Refugee Children, coordinated by Vanesa Desa, was a partnership initiative between the Indo Canadian Women's Association and Big Brothers Big Sisters Edmonton. Another sponsor, specially of the educational program, was the *Department of Educational Psychology, University of*

Alberta, through Dr J. P. Das. The Program was designed to engage children and youth of primarily refugee backgrounds in activities that strengthen their ability to achieve success in school. Run out of J. Percy Page High School on Mondays to Thursdays from 9:00am - 3:00pm for six weeks (July 7th - August 14th, 2008), the program intended to link children and youth with mentors of different ages, cultural backgrounds and interests through group activities that recognize and build on both mentors' and participants' skills and capacities with a large focus on learning activities (PREP and COGENT provided by Dr Das). Many other organizations have also contributed to the success of the summer program. These include: Edmonton Public Library - Millwoods Branch, the John Humphrey Centre for Peace and Human Rights, and the Butler Foundation. Volunteers played a major role in the delivery of the Summer program and it is estimated that volunteers donated approximately 1000 hours over the six week Program. The insights, learnings and relationships generated through this summer program will be used as a foundation for the development of after-school programs in the Fall that bridge between the school and family domain and that strengthen the ability of immigrant and refugee children and youth to achieve success in school and physical and mental well-being. (Excerpted from a memo prepared by Vanessa Desa.)