CANADIAN CHILDREN

Journal Of
The Canadian Association
For Young Children

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The Canadian Association For Young Children

What is the CAYC?

The Canadian Association for Young Children (CAYC) grew out of the Council for Childhood Education and became officially recognized in 1974 by the granting of a Federal Charter. It is the only national Association specifically concerned with the well-being of children from birth through age nine. Members of the Association are from Canada, the U.S.A. and elsewhere. They include teachers, caregivers, administrators, parents, students and other interested persons from a variety of professional disciplines who wish to share ideas and participate in activities related to the education and welfare of young children.

The Aims of the CAYC

1. To work for the development and well-being of children.
2. To foster desirable conditions, programs and practices to meet the needs of children.
3. To encourage continuous professional growth in accordance with knowledge of child development.
4. To bring into active co-operation all groups concerned with children and child development.
5. To disseminate information on child development.
6. To promote the co-ordination of all organizations in Canada concerned with young children.

Implementing the Aims of the CAYC

1. *The National Conference*
   The National Conference is a highlight of the CAYC. The program includes lectures by internationally renowned authorities on children, workshops, discussion groups, displays, demonstrations, school visits and tours.
2. *Provincial and Regional Events*
   The organization of members at the local and provincial level is encouraged to plan events to deal with the issues and concerns pertaining to young children. These events may take the form of lectures, seminars or a local conference.
3. *The Journal*
   An outstanding multi-disciplinary journal is published twice yearly. Articles by nationally and internationally known experts in early childhood education and child rearing are presented in the Journal of the CAYC.
4. *The Newsletter*
   Topics of local, provincial or national interest are featured in the CAYC Newsletter.

Membership fees are payable on application and renewable annually on an evergreen basis. To be considered a voting member, fees must be paid no later than 60 days prior to the Annual General Meeting held in November.

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Message From the President

Susanne Eden, President, Canadian Association for Young Children

Over the past few months I have enjoyed many discussions with parents, teachers and members of the childcare community. From these discussions, a maelstrom of issues surface which at times seem almost overwhelming. One of the most persistent concerns is the issue of quality education. While many deplore the decline in "standards" and point to the statistics on adult illiteracy as proof that education is failing in its mandate, no nationwide debate exists as to the real purposes of education. When the business community, parents, even educators themselves meet, there is no consensus as to what schools ought to be doing. "Back to the basics" has been a recurring theme for most of my twenty-five years as teacher. What has never been clear is precisely what these basics are. There is no question that literacy holds an important place in any list of basic skills. Yet in discussions it becomes apparent that what this means to many is a return to particular methods of instruction which many believed to have been effective even when these methods fly in the face of a substantial and impressive body of research accumulated over the past twenty years. Nor is it enough to impose, as recently proposed by the Ontario Ministry of Education, a return to standardized tests as a way of ensuring quality education. We cannot move forward by walking backwards. What is needed is a redefining of the concept of basic skills. In the traditional subject areas of literacy and mathematics, technology and research have provide the basis for developing increasingly more effective programs, ones in which generic skills of thinking and expression are stressed rather than learning through rote. The basic skills needed to become a fully integrated human being, must include the development of imagination and autonomy, of artistic expression and of socialization. The ability to collaborate and negotiate and communicate are basic skills which will serve the child well no matter how unsettling the changing world of tomorrow. As an organization, CAYC is committed to providing quality research and dialogue through publications and conferences.

This issue of Canadian Children contains material which should remind us of the importance of the inner life of the child and the need to approach education holistically. By acknowledging the importance of imagination and indeed the arts, the importance of literacy or mathematics is not diminished but enhanced. It is through these qualities of the mind that the child can embark on the life-long endeavour which is education. My personal hope is that all who read this journal will be imbued with the determination to crusade on behalf of this vision in the face of the changing winds of popular sentiment and the persuasive arguments of those who would reduce education to a set of test scores.

From the Editor

Glen Dixon, Editor, Canadian Children

In so many ways, modern society seems indifferent, even hostile, towards young children. Our newspapers across the country are filled with stories about child abuse, homeless families, the lack of adequate day care, the underfunding of school programs, and numerous other serious concerns including the effects of alcoholism, drug abuse and malnutrition on children. It may come as a shock to some Canadians that, in a country as rich as ours, so many of our youngest citizens lack the basic care, education, and protection that they deserve, and that others take for granted.

Those of us who work in the field of child care and early education may no longer be surprised when we read about the difficulties many families face, and indeed some of us come in contact with children who are at risk on a daily basis in schools and child care programs. But in order to carry on with our own lives in a normal fashion, we leave behind the children and parents we care for as we travel back to our comfortable homes and try to block from our minds the plight of neglected children once they leave our program.

We are probably much more aware than the average Canadian of the two-tiered system that exists in this country with regard to adequate child care and educational opportunities for the young. For those who can afford the tuition, Canada has some of the best preschools in the world, and community centres in the "good" neighborhoods provide a whole array of special programs for young children, including toddler gymnastics classes, cooking lessons for preschoolers, early reading programs, and in one upper income area of Vancouver, parents can even enroll their children in French-immersion soccer.

We do not wish to imply that all families at risk are poor. It is clear that there are abused, lonely and exploited children at all income levels and, conversely, many low income families or parents on welfare still manage to provide the necessary support and nurturance their children need. Nevertheless, in the absence of national standards for the care and education of young children, many Canadian children in communities from coast to coast, and in the north, do not have access to even basic programs which could at least provide them with an equal chance for sustained growth.

Is it really fair that many children in Southern Ontario can attend a publicly funded junior kindergarten, while children in New Brunswick must wait until they are old enough to enter Grade One before they can attend public school? While some provinces carry out a program of strict licensing regulations for day care, others do not. And, is it not a national disgrace that several provinces require little, if any, specialized training for child care workers, while a few provinces and communities set strict training

requirements? These and many other factors convince us that Canadian children are not treated equally from one community or province to another, and that it is too often the case that the provision of good or even adequate programs for children depends on the political intentions and motives of local and provincial governments.

In recent months we have seen the first steps toward some kind of national program for child care in Canada. However inadequate it may seem to some, it is a major sign of hope. Yet in spite of all the research evidence available to us which indicates quite clearly the importance of early experiences, a large percentage of Canada's young are being denied participation in early childhood programs.

What can we do as professional educators and care givers to improve the situation? Through our daily work with parents and children we can support and encourage exemplary programs which provide opportunities for optimum growth in all areas of development for children and families, while at the same time establishing positive reciprocal relationships with parents and other family members. We can assist training institutions, colleges, and universities to provide broadly-based programs in child development and early childhood studies for new teachers and workers entering the field. We can support and encourage the development of in-service programs for child care professionals and teachers. We can establish links in our community with others who share our concerns, such as those in the health care, social services, and law enforcement areas. And, we can help bridge the gaps that exist between programs and services for children through our support of interactive, multidisciplinary agencies and organizations such as CAYC at the national level, and other groups at the provincial and local levels.

At the risk of sounding sentimental, is it not true that we as professional educators and care-givers should care about all Canadian children and not try to pretend that someone else will fix things up? The evidence is clear that complacency leads to neglect, and indifference fosters ignorance. It is easy to sit back and lament the passing of the "good old days" and convince ourselves that the newspaper reports we read with a detached indifference should be the concern of others.

So, as you settle back to read this issue of our journal, begin by rereading the aims of CAYC printed on the inside front cover. Through a rededication to the goals of this organization your own work with children and families may become newly inspired, and your contact with colleagues in your local community and at the national level could eventually lead to the establishment of new programs and improved conditions for children in all parts of the country. If we, as members of the Canadian Association for Young Children, do not care for Canada's children, who will?

Articles

Influences on the Development of Piaget's Early Thought

Gary Woodill

The Image of Piaget in North America

It would be very difficult to find a teacher of young children in North America who has not heard of the work of Jean Piaget. His theory of cognitive development is reviewed in virtually every textbook on child psychology, and his theoretical constructions are almost a given for speaking about young children. Several varieties of Piagetian curricula exist, even though Piaget himself said almost nothing about pedagogy, and considered himself a "genetic epistemologist" rather than a child psychologist. But because of the particular form of the "Americanization of Piaget" (Rowland, 1968), his work has become part of the "world-taken-for-granted" in the field of early childhood education.

Yet, I believe, this common knowledge is a very superficial one. It is safe to say that most early childhood educators have not read many of Piaget's writings directly, and even fewer have a sense of the sources of his ideas. There are several reasons for this. First, most students of early childhood education receive their understanding of Piaget from general textbooks on children which summarize the main features of his theorizing and his findings. Second, these textbooks, and even Piaget's books themselves, contain little discussion of the history of his ideas. Third, the "discovery" of Piaget in North America occurred in the early 1960's, even though he had written most of his books on children in the 1920's and 1930's. Consequently, Piaget was "delivered" to North American educators as an older man whose ideas were quite well developed and were based on years of observation and collaboration with other researchers. The visual image of Piaget which accompanied many of the child psychology texts and books summarizing his work was that of a kindly looking white-haired older man contemplating the activities of young children. This image reinforced the idea of Piaget as a wise old man whose theories burst upon the scene when North America was looking for a more "scientific" approach to teaching young children than that offered by the fuzzy emotionality of progressivism.

Even books on the history of psychology say little about Piaget's own intellectual journey. Gardner's (1985) recent history of cognitive psychology summarizes Piaget's development in one sentence: "Trained as a biologist, with a particular interest in mollusks, he had taken a job as a tester in the laboratory of Theodore Simon, a former colleague of Alfred Binet who had invented the IQ test" (p. 116). Kendler's (1987) new

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text on the history of psychology is even more terse: "Jean Piaget (1896-1980), who was trained as a biologist, became interested in epistemological issues" (p. 366). A somewhat more detailed account of Piaget's beginnings is occasionally offered, for example in Weber (1984), who, in her book on the history of early childhood education, devotes two pages to discussing biographical and psychodynamic material on Piaget.

This view of Piaget as a biologist who turned to studying children does both him and students of Piaget a disservice. It supports the "great man" theory of history which views progress as coming from the genius of certain individuals, rather than a view that shows that the individual, while contributing to the changing understanding of ideas, was nevertheless a person in a certain place and time, immersed in a specific "episteme" (Foucault, 1972) of concepts and modes of thinking. Piaget's theory was very much a product both of 19th century thinking and his own psychological interests, which found currency in North America in the 1960's because of the crisis in education following the launching of Sputnik in 1957 (Elkind, 1976). North American educators, anxious that their children learn science and mathematics to get ahead of the Russians embraced Piaget's ideas with enthusiasm, without really examining their historical and philosophical roots.

Part of the reason there is so little writing on the formation Piaget's early thought stems from the fact that he was not inclined to provide such information in his later life. While he wrote an autobiographical article in 1950 and added to it in 1966 and 1976, he said relatively little about his earliest years. His close colleague and collaborator, B. Inhelder (1984) commented after Piaget's death, "knowing Piaget was oriented towards the future more than the past and, during the last period of his life, that he was anxious to bring his work to a close, it was only rarely that one questioned him on his formative years" (p.x). This lack of information on Piaget's early years has been mitigated to some extent by several recent publications which deal with the development of his thought (Boden, 1979; Ducret, 1984; Maury, 1984; Vidal, 1987; Vonèche, 1987). Ducret's (1984) massive two volume study of Piaget's early years, and Maury's (1984) much smaller but more critical book are especially noteworthy for the new insights they offer about the young Piaget. On the basis of these recent publications a sketch can be drawn of Piaget's early years which will allow us to move beyond the usual material found in North American textbook accounts of Piaget.

Piaget's Early Years

Jean Piaget was born August 9, 1896 in Neuchâtel, Switzerland. His father, Arthur Piaget, was a professor of medieval literature and an expert on the local history of Neuchâtel. Piaget (1976) describes his father as having a "painstaking and critical mind, who dislikes hastily improvised generalizations, and is not afraid of starting a fight when he finds historic truth twisted to fit respectable traditions. Among other things, he taught me the value of systematic work, even in small matters" (p. 2).

On the other hand, he describes his mother as "very intelligent, energetic, and fundamentally a very kind person; her rather neurotic temperament, however, made our family life quite troublesome" (Piaget, 1976, p. 2). One of the direct consequences of the situation was that Piaget started to forego playing for serious work at a very early

age, apparently as much to imitate his father as to take refuge in both a private and a nonfictitious world. Piaget confesses in his autobiography, "Indeed, I have always detested any departure from reality, an attitude which I relate to the second important influential factor in my early life, my mother's poor mental health" (p. 2). Piaget adds that when he began his studies in psychology, his experiences with his mother directed his interests towards the problems of psychoanalysis and pathological psychology.

Between seven and ten years, the young Piaget was successively interested in mechanics, birds, fossils, and shellfish. During this period he wrote a little piece on his idea for a steam driven automobile (the "autovap"), followed by a hand-written book on "Our Birds". Apparently his father commented critically that his book was "only a simple compilation", a remark which seemed to have hurt Piaget's feelings enough for him to have included it in his autobiography nearly 50 years later.

Nature Studies

Already a serious child at the age of ten or eleven, Piaget decided "to be more serious". He wrote an article on an albino sparrow he saw in the park, and it was published in the local journal of natural history (Piaget, 1907). Following this success, Piaget then wrote to the director of the Museum of Natural History to ask his permission to study its collections of birds, fossils, and shellfish outside of the opening hours of the museum. The director, Paul Godet, was known as a great authority on mollusks. He immediately invited Piaget to come to assist two times a week, and for the next four years Piaget helped Godet by doing various jobs such as sticking labels on collections of shellfish.

The critical aspect of this relationship was that Piaget, having an exacting father and a problematic mother, found in Godet someone who took his interests seriously and treated him as an important person, in spite of the great difference in their ages. Each session Godet would give Piaget some rare specimens for his personal collection, and he held a weekly meeting with Piaget to discuss their work together. Piaget (1976) says of these weekly meetings that they "stimulated me to such an extent that I spent all my free time in researching mollusks (there were a hundred and thirty species and hundreds of varieties at Neuchâtel); every Saturday afternoon I waited for my teacher a half hour early" (p. 3).

As a child Piaget was obviously gifted, but one can only speculate as to what effect his parents and his early experiences had on his later ideas. Because of the problems with the mental state of his mother, and possibly the high expectations of his father, Piaget seemed to learn very early to be self-sufficient, self-motivated, and alert to the world outside the home. It would seem that his early environment was somewhat lacking in the way of support for his developing intellect, and this need was supplied at a critical time by Paul Godet. As well, Paul Godet taught Piaget other important lessons which were to serve him for the rest of his life. He introduced him to the empirical-theoretical methodology of Swiss zoology of that era, which consisted of a description of the affiliation of species and the variation of specific characteristics according to local conditions, a methodology which owed much more to Lamarck than Darwin. Godet also led Piaget to a number of problems in philosophy of

science while channeling his interests towards those problems which were specific to zoology. For example, the difficulty of classification due to the existence of intermediary forms between typical forms raised the question of what led to the status of a species, a problem of realism versus nominalism.

According to Ducret (1984), an analysis of Piaget's early articles in zoology showed him to be a Lamarckian, in that he subscribed to the idea of an organism adapting to its environment; that is, exterior circumstances require changes which, within limits, the organism makes, while old features of the organism which are not used drop off. The possibility of reversibility was also present; an organism had a kind of "spiritual memory" based on the "plan of nature". Darwin's theory was the opposite; an organism had its hereditary "baggage" which, in the face of changed circumstances, could give it more or less survivability.

Piaget's precocious initiation into biology had a profound influence on him. When in 1911 Godet died, Piaget began to publish without help a series of articles on the mollusks of Switzerland, Savoy, Brittany, and even Columbia. These first articles showed an independence of thinking, and as a result, several of his foreign "colleagues" requested to meet him, invitations which he turned down because he was seemingly embarrassed about his young age. The director of the Museum of Natural History at Geneva, Mr. Bedot, who had published several of Piaget's articles in the *Swiss Review of Zoology* offered him the position of curator of the museum's collection of mollusks, two years before he finished high school.

Through the experience of observation and of reading articles in zoological journals Piaget developed a scientific attitude towards the world. He states that these scientific studies served as projective instruments against "the demon of philosophy" (Piaget, 1976, p. 3), which up to this point for Piaget meant religious philosophy. As well, he attributes his ability to overcome family crises to the mental discipline he had acquired to his early scientific work.

The Influence of Religion

Around the age of 15, Piaget's mother, a converted Protestant, made him attend a course on religion, where he finally had to confront the "demons of philosophy". He had great difficulty reconciling a certain number of religious dogmas with what he had learned in biology. As well, although he states that he had a belief in God, he immediately could see the fragility of the "five proofs of the existence of God".

Soon after this, Piaget discovered in his father's library the book *Philosophy of Religion Founded on Psychology and History* by August Sabatier, which he proceeded, in his own words, to "devour". In Sabatier's book, dogmas were reduced to the function of symbols, necessarily inadequate symbols, of an unknowable ultimate reality. In the book there was also the liberating notion of the evolution of dogmas. Sabatier's thought was a struggle against the religions of authority, fixed dogmatic religions, and was a defense of a religion of the spirit, centred on the life and example of Jesus. His theology was based on Kantian conceptions of science and religion, an elaboration of a Christian religion within the limits of reason. Sabatier's book had a profound influence on the young Piaget because it argued that it was the role of science to support religion. Piaget could relate to this view of the world and discovered a new passion, philosophy.

On a holiday the next summer, Piaget's godfather, Samuel Cornut, who seemed determined to broaden the interests of this overly specialized young man, spoke to him about the ideas in Bergson's book *Creative Evolution*. His godfather's introduction to Bergson marked the first time that Piaget heard someone speak of philosophy by someone other than a theologian; Piaget tells us that the shock was immense.

> First, it was an emotional shock; the identification of God with Life itself was an idea which moved me nearly to ecstasy because it permitted me from then to see in biology the explanation of all things, and even the mind itself. In the second place, it was an intellectual shock. The problem of knowledge (epistemology) suddenly appeared to me in an entirely new perspective and as a fascinating subject. This made me make the decision to dedicate my life to the biological explanation of knowledge. (p. 5)

Bergson's ideas appealed to the young Piaget for several reasons, but most importantly Bergson's idea of the Life Force fitted with Piaget's Lamarckian concepts of the "plan of nature" and "spiritual memory". As well, these ideas were later reinforced when Piaget read August Comte's proposal for a positivistic religion in which God was identified with all humanity.

This confrontation with the thought of Bergson, coupled with the possible answers to questions on religion which the adolescent Piaget had formulated, seems to have been some type of cathartic conversion experience. Ducret (1984) comments that Piaget's conversion resulted in a change of his view of God from one who was personal and moral to a sort of 'pantheism'. Most importantly, these revelations seemed to satisfy the intellectual conflict between religion and science which Piaget had had up to that point.

Although the actual reading of Bergson several months later disappointed Piaget somewhat, it didn't change his mind about his life's direction. Hoping in Bergson to find the last word on science, as his godfather had led him to expect, he instead had the impression of an ingenious construction without an experimental base. Piaget (1976) says, "I believe that it was at this moment that I discovered a need which could only be satisfied by psychology" (p. 5). Yet, because of the lack of experimental psychology in the universities of Switzerland at that time, Piaget would have to wait a few years before having the chance to involve himself directly in psychological research.

Philosophical Studies

For the next two or three years Piaget, still in high school, launched into as daunting a reading list in philosophy and the social sciences as one might find anywhere (see Table I): in philosophy – Bergson, Kant, Spencer, August Comte, Fouillée and Guyau, Lachelier, Boutroux, Lalande, Le Dantec; in sociology, Durkheim and Tarde; in psychology, James, Ribot, and Janet. As well, his philosophy teacher at the *lycée*, A. Raymond, was a recognized writer who gave Piaget guidance and intellectual stimulation. These various works had in common a positivistic philosophy which supported the empiricism of the scientific methods of the day, both in the natural sciences and the social sciences. As a result of this reading and study, Piaget was able to write and publish articles in philosophy on such topics as a comparison of Bergson and Sabatier (Piaget, 1914) and wrote a treatise in which he developed a

theoretical system relating parts and the whole, change and equilibrium (Piaget, 1915), concepts that were to form a significant part of Piaget's theory of cognitive development.

As well, Piaget was to absorb the leading ideas of the times and use them extensively in his own work. Boden (1979) describes Piaget's method as "dialectical in form" and notes that Piaget sometimes referred to his method as "dialectic constructionism". While Piaget was certainly not a Marxist, Goldman (1947) has discussed the parallels between Piaget's thought and "dialectic materialism". Piaget's dialectics, which can of course be traced back to Hegel, are reflected in his conceptualizations at different levels of analysis, from the process of "assimilation-accommodation-equilibration" to his claims of theoretical synthesis in psychology, philosophy and biology:

Table One: A Geneology of Piaget's Thought to 1921

			Major Authors Read by Piaget 1911–1921			
Date	Intellectual Milestones	Significant Influences	Naturalists/ Zoologists	Philosophers	Psychologists	Sociologists/ Anthropologists
1896	Born in Neuchâtel	Imitated Father				
1907	Wrote first article					
1909	Wrote many articles on natural history and zoology until 1920	Assisted Godet at Museum of Natural History with specimens	Read Godet, Lamarck, Forel, Yung, Darwin, Mendel, and Raszkowski plus many others			
1912	Course on Religion			Read Sabatier, Bergson,		
1914-1916	Wrote articles on philosophy	Reymond (Philosopher)		Kant, Comte, Spencer, Guyau, Fouillée, Lalande, Dantec, Lachelier, Boutroux	Read James, Ribot, Janet	Read Durkheim, Tarde
1918	Received Doctorat					
1919-1921	Went to Sorbonne	(Psychologists) Janet, Dumas,		Read Flournay, Brunschvig,	Read Janet, Bovet, Freud,	Read Lévy-Bruhl
	Interviews with children in Binet-Simon clinic and Salpêtrière	Piéron, Rabaud, Delacroix, Simon Lalo, Meyerson		Farel, Vinet, Frommel, Bridel Renouvier, Secrétan, Russell	Jung, Adler, Deuchler, Groos, Binet, Blondel, Rank, Sachs, Burt, Luquet, Claparède, Stern, Berguer, Baldwin, Descoeudres	
	Wrote first article on children	(Philosophers) Brunschvig Lalande				
		Claparède, Bovet				
1921+	Research in Geneva					

> In psychology, the thesis, antithesis and synthesis respectively are typified by behaviourism, Gestaltism (and ethology) and Piagetian developmental psychology. In philosophy, they are represented as empiricism, rationalism (including phenomenology) and Piaget's genetic epistemology. And in biology they appear as Lamarckism, Darwinism and his preferred theory of 'evolution by epigenetic assimilation'. In each of these cases, he says, the thesis posits *genesis without structure*, the antithesis posits *structuralism without genesis*, and his own synthesis offers *genesis with structure*, or a 'genetic structuralism' that focuses on the self-regulated development of increasingly equilibrated structures. (Boden, 1979, p. 16)

Piaget's dialectical structuralism is an epistemology which he notes is "very close to the spirit of Kantianism" (quoted in Boden, 1979, p. 91). For both Piaget and Kant the activity of the mind plays an important role in the formation and interpretation of the experience of the world. Yet, in many ways Piaget differed from Kant. While Kant ignored questions of the development and forms of space, time, identity and cause, Piaget gave these concepts prominence in his theory. As well, Piaget tried to avoid the level of idealism found in Kant by appealing to a biological, and therefore realistic, basis of knowledge (Boden, 1979).

Another philosopher who seems to have had a significant influence on Piaget's theory of psychology was Herbert Spencer, whose philosophy of psychology called for both a subjective psychology (e.g. introspection) and an objective psychology (e.g. experimentation). Spencer's goal was to construct a positive philosophy uniting the phenomena of nature with the laws discovered by science, and in his philosophy of science he used such biological concepts as assimilation, conservation and equilibration. Spencer also wrote on religion and, unlike Sabatier or Comte, believed that the object of religion was situated beyond the limits of positive knowledge. The laws of science were to be considered as a symbol of the Absolute. Science and religion were two separate spheres of knowledge; science operated in the world of real things, while religion operated in the sphere of the Unknowable. There were conflicts only when one or the other left their respective domains. Spencer also wanted to discover the scientific basis of good and evil, a subject which Piaget would echo in his study of moral development in children.

The study of the mind, which had a long tradition in philosophy, was a key concern of the new field of psychology, still in its infancy at the turn of the century. Piaget had read William James, Théodore Ribot and Pierre Janet as a high school student, before his intensive years of studying psychology at the Sorbonne in Paris had begun. James wrote on the psychology of religion, a subject of great interest to Piaget. Ribot called for his fellow French psychologists to describe and research the "laws of psychic phenomena" using two methods – directly by interior observation of the facts of consciousness and indirectly by exterior experimentation of "psychological states". These two procedures corresponded to the two domains defined by Spencer: subjective psychology on the one hand, and objective psychology on the other. Janet, who was to become one of Piaget's professors in Paris, first used the concept of psychological assimilation which he described as "the power that causes the subject to unite, to condense his psychological phenomena, to assimilate them to themselves . . . " (quoted in Ducret, 1984), a formulation which Piaget borrowed in his own use of the term.

Piaget's Initial Studies in Child Psychology

In 1919, after having received a doctorate in biology from the University of Neuchâtel the previous year at the age of 22, Piaget set out for Zurich and then Paris to work with some of the best known psychologists and philosophers of his time. To get an idea of the topics in psychology Piaget would have studied in Paris, it is instructive to examine the courses offered at the Sorbonne at that time (see Table II). The last two seminars listed in the table were particularly significant for the development of Piaget's thought because of their cognitive orientation (Ducret, 1984).

At the Sorbonne Piaget was truly immersed in the dominant paradigms and findings in the field of psychology of his time. Most importantly he would have been exposed to the new field of child psychology which had first been developed in the United States by Hall, Baldwin and Dewey, and which had been extended in Europe by such people as Binet, Claparède, Bovet and Decroly.

Table Two: Psychology Courses Offered at the Sorbonne, 1920–1921 (Summary of Ducret, 1984)

General Psychology (a survey of French Psychology of the 19th century) – given by Delacroix

Experimental Psychopathology (including practical exercises at the Clinical Asylum) – given by Dumas

Comparative experimental psychology (its theme was the evolution of the personality) – given by Janet

Physiological Psychology (on the senses) – given by Piéron

Zoological Psychology (on tropisms, reflexes, etc.) – given by Rabaud

Practical Exercises in Experimental Pedagogy – supervised by Simon

As well, there was a set of seminars with a number of lecturers. Seminars included:

I, II, and III: The essential facts of heredity, the theories, heredity and education, by Rabaud

IV and V: Infantile Psychopathology and Education, by Meyerson

VI: The role of emotions and effective states in education, by Piéron

VII: Esthetic feelings in education, by Lalo

VIII: Memory and education, by Piéron

IX: The development of the notion of space in the young child, by Meyerson

The scientific study of the child began in 1880 in the U.S.A. with G. Stanley Hall's inquiries into the thought of the young child. In 1881 Hall published *The Contents of Children's Minds on Entering School*, which was reprinted in 1891 in the first journal of child psychology, *Pedagogical Seminary*. Around 1895 Dewey began to develop his "functional psychology" with its accent on the practical character of human intelligence.

Dewey's work was published in French in 1913 as *L'Ecole et L'Enfant*, and the introduction to this book was written by the Swiss child psychologist Claparède, the editor of the *Archives de Psychologie.*

But perhaps the most significant American psychologist in terms of the later development of Piaget's theory of cognitive development was James Baldwin, whose writings were probably introduced to Piaget by Janet (Ducret, 1984). In 1894 Baldwin wrote *Mental Development in the Child and the Race*, which was translated into French, with several additions, in 1897. Baldwin studied the development of imitation in his own daughter (imitation of drawings) and suggested the following hierarchy of levels of the effects of "suggestion" on the young child: 1. Physiological, 2. Sensorimotor, 3. Deliberative, and 4. Ideo-motor. In this work Baldwin also referred for the first time to "circular reactions" or "organic imitation", the idea that a child repeats and learns from an action which gives pleasure.

In 1897 Baldwin published *Social and Ethical Interpretations in Mental Development*, in which he suggested that the formation of the personality passes through three stages: 1. The Projective Stage: exterior persons appear in the eyes of the child as objects manifesting behaviours which particularize them as separate from other objects, 2. The Subjective Stage: imitating these exterior behaviours, the children enrich their personalities and develop a conscience which is more and more clearly their own, and 3. The Ejective Stage: the child projects onto others the understanding acquired of himself or herself. As well, in 1906 Baldwin published the first volume of a series of four books under the title of *Thoughts and Things, a study of development and meaning of thought, or Genetic Logic*, in which he described the genesis of forms of thought as having the following modalities: pre-logical thought, experimental logic (scientific thought), and hyperlogic (esthetic thought and mystical thought), and as operating in different types of realities: e.g., the world of play, myths, the objective universe of science, the ideas of practical thought and the world of art. Piaget's theory would echo many of Baldwin's ideas.

There were other important milestones in the development of child psychology in the period prior to Piaget's entry to the Sorbonne, and these too must have had an impact on his developing conceptualizations of children. In 1902 Queyrat published *The Logic of the Child and Its Culture*, and in 1905 Freud wrote *Three Essays on Sexuality*. In 1905, as well, Binet and Simon published their first results on the testing of children's intelligence, and Claparède's *The Psychology of the Child* also appeared in print. 1907 and 1909 saw publications on children in German by the Sterns, and in 1912 Decroly and Degrand's "Observations relatives à l'évolution des notions de quantitiés continues et discontinues chez l'enfant" was printed in the *Archives de psychologie*. The year 1912 also witnessed the creation in Geneva of the J.J. Rousseau Institute by Claparède and Bovet.

For Piaget, however, the most significant event for his future career was being asked by Dr. Simon, while he was still a student at the Sorbonne, to standardize Burt's intelligence tests in Binet's laboratory in Paris. (Binet had died in 1911). Here Piaget found that he was not very interested in the given task; he was fascinated by the errors which children would make in taking the tests. He discovered that children's errors up until eleven involved "inclusion of a part in the whole, or relationships, or the

mixing of classes (finding the common part of two entities). . . . " (Piaget, 1976, p. 9). Something in Piaget made him realise that he had discovered a significant field of study, one which fitted with his scientific and philosophical background. He explained:

> Finally I had discovered my field of research. In the first place it appeared to me that the theory of relations between the part and the whole could be studied experimentally by means of the analysis of processes underpinning logical operations. This marked the end of my theoretical period and the beginning of an inductive and experimental period in the domain of psychology where I had always wanted to penetrate, but which until then I had not found an adequate problem . . . furthermore, the possibility of directly studying the problem of logic was in accord with my other philosophical interests. Finally, my goal which was to discover a sort of embryology of intelligence was adapted to my biological training; from the beginning of my theoretical reflections I was convinced that the problem of the relationship between an organism and its environment held for the area of knowledge, appearing there as a problem between the acting and thinking subject and the objects of his experience. The chance was given to me to study this problem in terms of its psychological beginnings. (Piaget, 1976, p. 10)

The opportunity to study children in detail was offered to Piaget by Claparède. He began in 1921 by accepting for publication in the *Archives de psychologie* one of the three articles Piaget had written on his observations in Paris, an article entitled "A verbal form of comparison by the child". Then Claparède made Piaget a proposition which changed the course of his life, offering him the position of the head of research at the Rousseau Institute in Geneva. In a telling comment in his autobiography Piaget says, "This prospect delighted me, more because of the fame of Claparède than because of the marvelous possibilities for research that this post offered; . . . I will say immediately that Claparède and Bovet were ideal supervisors, who left me free to work according to my desires" (Piaget, 1976, p. 11).

Claparède was a biologist and medical doctor, who came to psychology by way of the sciences, the same as Binet. He worked in several areas connected with physiology, after having trained at an experimental school in Germany. But after 1900 Claparède concentrated his research on the field of education. He had the idea, borrowed from J.J. Rousseau for whom he had a great admiration, that children were active, autonomous and by nature curious. "There is a great analogy", he wrote, "between the child and the wise person". As well, he admired and was influenced by John Dewey.

In 1912 in Geneva, Claparède opened the "Institute for the Sciences of Education", which he christened the "J.J. Rousseau Institute". The Institute was both a research and teaching facility, and several important studies in child psychology were undertaken before Piaget arrived to become the head of research. Some of the research undertaken at the Institute before Piaget's arrival included a series of studies on the reading process and the development of reading tests, significant work by Mlle. Giroud on attention, imagination, memory, and mental level of young children, and research by Mlle. Descoeudres on verbal knowledge of 9 to 12 year olds, the processes of moral development, and choice behaviour in young children

(Bovet, 1932). Descoeudres' book, *The Development of the Child from Two to Seven Years Old*, was based on observations of over 500 young children, and received acclaim in both Europe and North America. It is clear from this list that a significant part of Piaget's research agenda after his arrival was directly related to ongoing work at the Institute itself.

Claparède had attached to the Rousseau Institute a school, the "Maison des Petits", where Piaget would undertake a major portion of his research studies, and "where reigned a total Rousseauian atmosphere" (Maury, 1984), one in which children had a great deal of freedom. Claparède wanted a "school made to measure" for the young child, a school where both the pedagogy and the teacher were at the disposition of the pupil and oriented towards the interests of the child. From this point of view he opposed the conception of "mental orthopedics" of school as proposed by Binet or any specific curricula, and was closer to pedagogues such as Decroly in Belgium or Dewey in the United States. Claparède's "functional pedagogy" or "experimental pedagogy" rested on the psychology of the child's needs and interests.

It was into this atmosphere of freedom for the child that Piaget entered in beginning his research at the "Maison des Petits". One wonders whether the setting also had an effect on his findings, and whether his model of the child as the curious, investigating scientist-to-be would have emerged if Piaget had begun his research by watching children in a regular classrooom. We know little about Piaget's own child-rearing methods, but if he and his wife, who was a student at the institute when Piaget met her (Piaget, 1976), followed the methods offered by their unique setting, then perhaps we can speculate that their child-rearing methods at home, and consequently the results of the observations of their children were not all that typical when compared with other Swiss families at the time.

Several aspects of Claparède's work were borrowed by Piaget in his own theory (Maury, 1984). In 1946, Piaget prefaced a new edition of a book by Claparède, *Psychology of the Child and Experimental Pedagogy*, and there he insisted on a distinction that existed in Claparède's work, between the function, which remained invariant over the course of development, and the mechanism or organ which, on the contrary, varied. Piaget kept the functional invariance but he transformed it: from biology it became logic. For organ, he made the grammatical shift to organization, which led to structure. Piaget would experiment with the structures of the thought of the child and create a theory of logical invariance. In this way, he would find himself again, thanks to Claparède, on the terrain of a biology which was specifically human. This is what he had been searching for since he had decided in his youth to dedicate his life to "the biological explanation of knowledge".

Piaget and Pychoanalysis

Much of the histography on Piaget is based on his own accounts, his autobiography and a few interviews. This raises the question as to whether or not we are well served by Piaget's own recollections and explanations of his life, or whether it is a selective account designed to minimize the areas of difficulties and highlight the successes. Nowhere does this tendency seem more apparent than in an exploration of Piaget's relationship to psychoanalysis.

Perhaps Piaget's explanations for the various choices in his life are too simple, perhaps too cerebral. What, for example, made Piaget predisposed to pay attention to children's errors, rather than the results of the intelligence tests he was supposed to standardize in Binet's clinic? Piaget says that he was convinced at the time that in making errors "the child necessarily suffers a feeling of inadequacy . . . " (quoted by Maury, 1984). "Inadequacy" in comparison to whom? Compared to the adult whom the child differs from by "nature"? Yet, how much of Piaget's interest in errors was conditioned by his early childhood, by his exacting father and mentally unstable mother?

Piaget did not seem to be able to analyze his own feelings very well, although he was very familiar with psychoanalysis and had read the works of Freud, Jung and Adler. In fact, he was so familiar with psychoanalysis that shortly after arriving at the Sorbonne he was invited to give a paper on the connections between psychoanalysis and child psychology, and in 1922 he gave a lecture at the Congress of Psychoanalysis in Berlin with Freud on the platform (Weber, 1984). But he was to turn away from the concepts of psychoanalysis in developing his theory, although not before borrowing some key ideas. While some authors have characterized Piaget's interest in psychoanalysis as a "flirtation" (Weber, 1984), both Maury (1984) and Vidal (1987) have presented detailed discussions of the connections, whether Piaget admitted them or not, between Piaget's theory and psychoanalysis.

Vidal (1987) reveals several interesting details of Piaget's involvement with psychoanalysis which shows that as a young man he took it very seriously. Piaget underwent daily psychoanalysis for eight months with a Jungian analyst, Sabina Spielrein. As well, he made several attempts at psychoanalyzing others, including a failed attempt at analyzing his own mother.

According to Maury (1984), Piaget's portrait of the characteristics of the pre-operational child, particularly the concept of "egocentrism", owes a great deal to psychoanalytic thought. In spite of his later denial of being influenced by psychoanalysis, Piaget would find in Freud's theory his model of the "pre-scientific" child, which Piaget then contrasted with a model of the "scientific" adult. Maury (1984), quoting at length from Piaget's 1920 speech to the Alfred Binet Society, describes his thinking on the differences between adult and child.

> Scientific thought, "in the larger sense of the term", undoubtedly presents all the characters of the conscious as it is "at once logical and objective . . . everything else participates in the psyche in all its complexity, that is to say, the passions, the desires, the beliefs, of the unconscious itself . . . This is the thought of the child, the neurotic, the daydreamer, and the artist. It is also that which Lévy-Bruhl studied under the name of 'prelogical thought' and whose principal character in primitive societies is its union with magic." Then Piaget continues, "Psychoanalysis has rendered the very great service of showing the fundamental unity of these ways of thinking and of showing that they are all governed by the same laws as dreams. We will call, with Bleuler, 'autistic thought', this general activity of the mind, when compared with scientific thought, it is strictly personal and incommunicable". (Maury, p. 47)

In Piaget's subsequent papers over the next few years, he seems to use the terms "autistic thought" and "egocentrism" interchangeably, that is, to designate the pre-

logical, pre-scientific thought of the child. For example, in a paper in 1923, Piaget begins by defining the "pre-logical" character of children's thinking as "'that form of thought which is to the credit of psychoanalysis to have shown its meaning in dreams, daydreams . . . and which we can agree to call with Freud 'symbolic thought', or with Bleuler 'autistic thought' or 'non directed thought'" (Maury, 1984, p. 49). Later, Piaget will only refer to "egocentrism", but without really acknowledging the origins of this term.

Beyond this question of vocabulary is another question: if the thought of the child, the neurotic, the daydreamer, and the artist have a fundamental unity, are there not differences between them? For Piaget, however, only one characteristic counts: these ways of thinking compared to "scientific thought". While he has proposed a continuity and a kind of progression between the conscious and the unconscious, he also held to their opposition – between what he called autistic thought and scientific thought, as well as the idea of a progressive "leap" or passage between them. This leap is indicated, says Maury (1984), by his reference to the dream and its "laws". The dream, Piaget tells us, "is a symbolic account", and "a symbol is an embryonic concept charged with affectivity". Was it sufficient at that time, Maury questions, to unburden the symbol from its affectivity in order to pass, as from a dream to reality, from unconscious, autistic, symbolic and infantile thought, to the thought of the adult, logical and scientific, because it was impersonal and communicable?

In other words, how much of Piaget's theory of young children was modeled after his own early childhood experiences, the young boy who gave up fantasy and play for serious scientific study of the world? How much of his theory as well as his rejection of psychoanalysis was based on a fear of feelings, of dreams, and of imagination. Anthony (1968) has characterized Piaget's intellectual output as "an affectless monolith", "a magnificent theoretical edifice — one completely comprehensive, self-contained, internally consistent, without loose ends or unfilled spaces, and vigorously freed from affect: no place at all for anxiety to permeate". It was, Anthony adds, "a monument to the child that died early in childhood and was replaced by an intellectual paragon" (quoted in Weber, 1984, p. 155–156). Vonèche (1987), in drawing parallels between Piaget and G. Stanley Hall, notes how both hall and Piaget held to ridicule any position adverse to their own theory, and "exploited their collaborators intellectually and financially" (p. 330). He attributes this attitude to both their common puritanical upbringing and the social structures of their times. If this is the case, that Piaget's theory was a monumental defense against his own feelings and a reflection of his moralism, then we can begin to understand its images of the constantly thinking young child, ideally developing into a rational logical adult with strong moral principles.

Conclusions

In summary, it has been shown that Piaget, while an obviously very gifted child and young man, did not construct his theory of cognitive development "out of thin air", or entirely as the results of careful observation and experimentation with children. Rather, important pieces of his theoretical conceptualizations were already in place by the time he began systematic research with young children in Geneva after he

was 25 years old. While Piaget added to the ideas he borrowed, he nevertheless was a product of his times, and of his own psychological needs formulated in the particular family in which he grew up. Piaget's picture of the child may be as much a reflection of his own self-image as a model based on the children he observed in Geneva.

Piaget's theory has recently been widely criticized, even though his work was received with great enthusiasm in the 1960's. Gardner (1985) contends that "the logical formalisms underlying specific stages are invalid, the stages themselves are under attack, and his descriptions of the biological processes of stage transformation have eluded even sympathetic scholars. Even his impressive program of genetic epistemology has fallen into disuse – apparently too daunting a challenge for most investigators to pick up" (p. 118).

Nevertheless, his theories were provocative, and much of his work broke new ground by adding to and surpassing the research of others. As Gardner (1985) has noted, "even when Piaget's particular demonstrations have not always stood up in just the way he described them, further knowledge has invariably been built on his pioneering studies" (p. 117). Yet, perhaps the generally uncritical acceptance of Piaget's theory in the field of early childhood education has resulted in a dominant ideology (as a set of commonly held beliefs about children) in addition to advancing further knowledge. Only by placing Piaget's work in its historical context and by tracing the philosophical and psychological roots of his thought can we begin to develop a more critical stance towards Piaget's theory, which will in turn enable us to see its deficits and its limitations, as well as its insights and its power, in describing how young children grow up.

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Mathematical Ideas in Early Childhood

Susan Ditchburn

The everyday world of the young child holds rich potential for encounters with mathematical ideas. Through active exploration the child begins to abstract ideas about space, measurement and number to build the foundation for mathematical thinking. The teacher's role is to encourage reflective exploration, an active mental engagement as the child manipulates materials in play experiences.

Preschool children use surprisingly sophisticated mathematical reasoning in solving problems encountered in their everyday lives (Hughes, 1986). Our understanding of the development of mathematical thinking has been furthered by Piaget's theory of number despite recent challenges to his position (Donaldson, 1978; Ginsburg, 1983; Hughes, 1986). For Piaget, number and mathematical thinking in general must be actively constructed by the child. Three forms of knowledge are delineated. The first, social knowledge, may be transmitted directly; for example, that Christmas Day falls on December 25th (Kamii, 1985). Physical knowledge, by contrast, is gained perceptually. Children learn about shape and size by perceptual encounters with varying shapes and dimensions. Logico-mathematical knowledge, however, is an internal construction in which children create mental relationships through "reflective abstraction". Number is an example of logico-mathematical knowledge. The numerosity of a set or group of objects does not reside perceptually in the objects: rather, numerosity is a mental relationship, an internal construction which arises through reflective abstraction. The learner must reflect on the thinking process itself. By examining mental structures the child creates new configurations which facilitate new and diverse connections.

To foster mathematical thinking teachers must provide opportunities for children to observe their actions and to reflect upon them, to think about thinking. In Piaget's (1974) words, "to understand is to invent." For young children, knowing is a pragmatic, action-oriented event. Children need support if they are to make connections between action-oriented mathematical thinking typical of everyday encounters and play experiences, and formal mathematical thinking (Groen and Kieran, 1983, p. 369). The difficulties which children experience with the formal symbolism of mathematics give force to this claim (see Hughes, 1986, for a penetrating analysis).

Evans (1983, p. 68) poses an essential question: "When is a child's activity mathematical?" His question presents a dilemma for teachers of young children;

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namely, in child-directed activity how do we identify mathematics-in-action? And in Williams and Kamii's (1986) terms, how do we encourage movement from "mindless manipulation" to "reflective manipulation"? Piaget has discussed the importance of social interaction in mathematical thinking with profound ramifications for the organization of instructional space, time and materials. Through interaction, adults and peers assist the child to establish connections between action in the here-and-now and previous related experience. Through language the child moves from tacit, intuitive understanding which characterizes engagement with concrete problem-solving toward explicit formulation. Mathematical understanding is nurtured for children in the dialectic between practical inquiry and abstract reasoning (Hawkins, 1974).

The question of interest is: what constitutes mathematical thinking for young children? To address this question several examples of children's everyday practical action are presented. In each example potential mathematical ideas are identified. Following each example are a number of possible extension activities which are designed to help children develop a web of rich connections. Through practical activities in early childhood classrooms children engage in 'bottom up' learning experiences in which spontaneous concepts emerge allowing practical, localized solutions to localized problems (Vygotsky, 1986). The teacher's role is to foster 'top down' learning which leads to scientific concepts, those general concepts which are valued in our culture and which have broad application (Saxe & Posner, 1983, p. 297). Both 'top down' and 'bottom up' approaches are mutually informative.

A number of anecdotes follow. Each is chosen for its usefulness in demonstrating children engaged in mathematical inquiry. Having identified the exploration underway, we may examine means by which the inquiry may be extended. The anecdotes are drawn from videotapes of five-year-old children engaged in several typical learning areas of the classroom.

In the first example, four children were working with large blocks. Their construction activity revealed spontaneous engagement with pattern in several modalities. One boy, Paul, experimented with rhythmic pattern as he created a beat by banging two blocks together. He then hummed a melody which reiterated his rhythmic pattern. After some minutes of practice he moved to large barrels in one corner of the block area and experimented further with his rhythmic pattern by using sticks to reconstruct the pattern in a different tone medium. Rhythmic pattern draws upon primitive understandings of sound and time intervals. What was fascinating about this spontaneous exploration was the focus evident. Paul's action extended over a ten minute period. He was engrossed and seemed oblivious to vigorous, noisy activity in close proximity. While Paul was engaged in his individual inquiry, three other boys built intricate structures in which a repeated stylized pattern was evident. The children arranged decorative blocks in a sequence which demonstrated their attention to space, to measurement and to number. Both activities occurred simultaneously in the same location, yet there was little or no interaction.

In a mathematical sense, then, what are the implications for the teacher? Reflection on the children's experience with pattern and representation suggests the potential for building understanding about representation, about space, about scale. Teachers must provide children with the language which mediates such experience;

in the case of pattern, the notion of linear repetition of a pattern with a starting point and ordinal reiteration of elements. Children need to confront pattern in all its richness and complexity, in design, movement, music, poetry, number. Following the previous example of a construction activity which embodied design features the children might examine building plans and simply maps. In a more encompassing sense, construction itself is a representation and the notion of representation is perhaps *the* essential human construct with links to language and to non-discursive representation systems. Eventually, children come to recognize that mathematics may be represented as a unique abstract system.

The examples which follow provide a sample of activities chosen to extend children's spontaneous concepts about pattern and representation. Note that the activities are not limited to mathematical ideas, but a commitment to understanding as a rich kaleidoscope of interconnections which transcend disciplinary boundaries.

Concept	**Related Experiences**
Space	Books with repeated refrains or patterned language.
	Decorative uses in building design.
	Pattern in environmental contexts—animal prints, flowers, leaves, snowflakes.
	Bead stringing activities—continue the pattern.
	Calendar patterns (3, 13, 23, 10, 20, 30 . . .).
	Print making.
Representation	Construction activities—Lego, Meccano, Tinkertoys.
	Art experiences.
	Use of names as a representation system.
	Signs in the environment.
	Calendar activities.
	Graphs as representations of classroom explorations.
	Print making.

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The second anecdote is drawn from the dramatic play area. The area had been partitioned into one section which represented a house and one section which represented a store. The latter included a cash register, money, a telephone, and various items for sale. The three episodes quoted suggest typical spontaneous concepts which emerge in play. As discussed, these spontaneous concepts must be linked appropriately to scientific concepts, those which are valued in our culture and which have potential for more general application and utility. The transcripts have been simplified for the purposes of the present discussion.

A. Hi. (looks at price tags) Four, four cents.
D. Four pennies? Four pennies?

A. (nods head) Yep.
D. (counts out pennies) One, two, three, four.
A. (rings in cash register)
D. (to A) You need one quarter.
A. Um, quarter? There you go.

S. (begins counting)
D. Make sure all the quarters are quarters.
S. Take all your money out. (counts money)
Three, four, five . . . (continues counting to 21)
I have twenty-one.
D. Yeah.
S. Oh, you're gonna have more than that.
D. No, I'm gonna have to count.
One, two, three . . . (continues counting to 10)

S. Can I have your phone number so I can call you?
K. 2 5 8 No, 2 5 6.
S. (writing) Twooo . . . Fiiive, wait (Pause). Just tell me it.
K. 2 5 6 No! 2 5 6 4 5 8 2.
S. D, give me your phone number.
D. Twooo.
K. Mine's 2 5 6 4 5 8 2.
S. (writing) Twooo.
D. (dictating) Twooo, five, six.
S. Fiiiive . . .

In these examples the children reveal their immersion in a world which abounds with number. Telephone numbers demand an understanding of number in its social sense where it is used as a label. The children have memorized their own telephone numbers and demonstrate their skills of numerical recognition and symbolization. They can verbalize the number word and recognize and produce its abstract representation. As the children count money at the cash register they utilize simple ideas of counting and one-to-one correspondence, an activity which does not demand attention to money as quantity. Nevertheless, most five-year-olds know that a quarter buys more than a penny and that the tooth fairy understands the metrics involved! The power of utility in learning is apparent.

A number of related extensions follow in which concepts of number and quantity are explored. Each teacher will expand these into relevant experiences as curriculum decisions are made which draw upon such considerations as individual needs, the focus of the classroom, his/her own strengths and interests, and available resources.

Concept	**Related Experiences**
Number	Non-numerical uses—telephone numbers, car licenses, player identification.
	Numerical uses—date, year, house numbers, age, grades.

Quantity	Money—coin recognition, relative values. One-to-one correspondence activities. Cardinal number. (Note: Cardinality, the notion that the last number in the string designates the quantity, is a very difficult one for young children).

The third anecdote draws from another sequence in which a solitary child was intently engaged at the sand table. A number of wooden roofing slats were used to cover the surface of the sand along with a construction activity which resembled the assembly of playing card 'houses'. As the child used the slats to cover the sand, primitive concepts of topology were apparent. The rectangular shape of the slats made it possible to cover the area with no gaps in contrast to curved shapes such as circles. Further, the child was engaged in partitioning area. In mathematical terms partitioning entails an understanding of number and of the operations, addition, multiplication and division. As the house building activity progressed, the child learned how to support the walls using experiential knowledge about the texture of the sand needed to provide a strong supporting buttress. Further, experiential ideas of the vertical and horizontal plane and slope were evident as the building took shape. Several related ideas and experiences follow. These experiences are designed to enhance the learner's concepts about space, measurement and number.

Concept	**Related Experiences**
Space	Tesselation—Use of parquetry blocks to find which shapes will cover an area.
	Transformational geometry—Use of parquetry blocks and geoboards to experiment with slides, flips, turns. Recognition and labelling of 2D shapes.
	Paths—inside, outside.
Measurement	Use of informal units to measure length, area.
Number	Partitioning—sharing toys, blocks, friends and equipment; for example, in Physical Education groups—how many equivalent groups and leftovers. Use of graphs where rows and columns present information.

The fourth anecdote arose from a teacher-designed experience based on an exploration of the concept of roundness. The teacher, Vicki Jackson, the E.C.S. (kindergarten) teacher at University Elementary School in Calgary, wanted to provide children with opportunities to explore the function of roundness. She first researched the concept herself and provided the following attributes for our discussion. Any point on the edge or circumference of a circle or sphere is always the same distance from the centre. This unique attribute of circles and spheres make them work as wheels and balls. Further, the shape is efficient; the circle encloses the greatest area of any shape in relation to the length of its circumference and spheres contain the greatest volume in proportion to the surface area. It is these features of the circle

and sphere which lead to the frequency of their occurrence in nature. Clearly, an understanding of these attributes requires adult thinking. However, if we are to guide children's thinking we must strive to help children to make connections between their experiential understandings and these 'scientific' understandings. Obviously, this is a long-term process.

In order to help children explore the function of roundness and extend their thinking, Mrs. Jackson devised a number of explorations. Several are described briefly. The children were given a ball and a cylinder each with a white stripe encircling its centre. As the children rolled these on the floor they watched the white stripe and discussed the differences. This exploration led to ideas about roundness, about why round things work as they do, about the directions in which objects can exhibit roundness. At the water table they experimented with different shaped bubble frames made from coat hangers. One frame was circular, one a diamond and another a triangle. With bubble solution they predicted the shapes of the bubbles from each frame and tested their predictions. Using playdough they experimented with making round shapes using different tools; hands, rolling pins, cookie cutters. In the carpentry area they made wheeled vehicles and discovered the importance of roundness as well as the centering of the wheels to the efficient movement of the vehicle. Another appropriate activity taken from Macdonald Starters *Wheels* is the construction of gear wheels from cardboard cylinders such as paper towel rolls where the edge is covered with corrugated cardboard. Once constructed the wheels may be used to examine how interlocking gear wheels work such as the mechanism of clocks. A further exploration would be to identify circles and spheres in the natural and physical world, for example, raindrops, bubbles, fruits, pulleys, windmills.

The foregoing simple but typical examples of classroom events reveal the potential for rich educational experiences arising from children's activities which may be self-initiated or teacher directed. In selecting these examples the major sub-areas in mathematics education have been emphasized: measurement, geometry, number, operations. Teachers of young children must observe thoughtfully and intervene with sensitivity to the child's developing mathematical understanding. Follow-up activities may then be selected to help children forge connections. Familiarity with the world of young children in general and more specifically with the individual in any group provides insight into possible spontaneous concepts which have potential for fostering mathematical thinking. The sheer impossibility of knowing what is happening for each child in the moment-by-moment encounters typical of the early childhood years means that teachers must utilize specific and generalized knowledge in planning the environment.

The discussion has ramifications for teacher education. Prospective teachers must be thoroughly prepared in child development, in the structure of the disciplines, and in the prescribed curriculum, its philosophy, scope and sequence. This infrastructure is a resource for reflecting on curriculum experiences which draw upon children's spontaneous inquiry. In the early childhood years such inquiry is enacted in a richly provisioned environment as "teachers grow in the art of matching those provisions to children's own changing valences and capacities" (Hawkins, 1974, p. 98).

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Can You Imagine?

William J. Duignan

> The first of our senses which we should take care never to let rust through disuse is that sixth sense, the imagination. I mean the wide open eye which leads us always to see truth more vividly, to apprehend more broadly, to concern ourselves more deeply, to be, all our life long, sensitive and awake to the powers and responsibilities given to us as human beings.
>
> Christopher Fry

A month ago today—March 30th to be exact, I was in London England. It was Vincent Van Gogh's birthday (I learned from the BBC) as I learned also that one of his famous Sunflower paintings was to go on sale that evening with the expectation that it would bring the highest price ever for a single painting. The same television newscast announced that Her Majesty the Queen would officially open the new Clore Gallery—the recently completed addition to the Tate, which would display the entire Turner collection under one roof. Then there was an update on Mrs. Thatcher's visit to Moscow—and, that evening, we were told, she would be at the Bolshoi, enjoying "Swan Lake." Added to all of this, there was Academy Award fever—for on that rather singular evening, Hollywood too, would be honoring art.

Reflecting upon the significance of my media encounter, several factors seemed apparent. It was significant because, for a brief period of time it seemed that the arts were the most important thing in the whole world. Also, that these vehicles of human expression—painting, dance, film, music and literature, seemed to be the great connectors—the link between cultures as diverse as Hollywood and Moscow—and between the spirit of the Romantic nineteenth century of Van Gogh, Turner, and Tchaikovsky, and the electronically sophisticated twentieth. If I had experienced some difficulty in the past, with McLuhan's prediction that in an age of instant communication the media would become the environment—it seemed suddenly very clear. And it seemed obvious too, that the increasingly universal art environment had a close association with big business.

Reporting the sale of the Van Gogh painting, a London paper observed: "the price for the 39 inch by 30 inch painting of 15 Sunflowers works out at 1,650,000 pounds a flower"—about three million Canadian dollars! The overriding message in all of this is that the world community has an overwhelming reverence for the arts. The price tags are high because as a society we have come to prize expressions of the imagination.

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And for this very reason, "Swan Lake" has the power to placate nuclear warheads, however temporarily.

On the Wednesday of Holy week I visited the Turner collection—it was an appropriate week for an experience which seemed largely spiritual. As I took my turn to stand and wonder in the presence of the masterpieces we have known so well—and participate in an act of veneration—I reflected also on the presence of the crowds of curious and reverent viewers. What exactly is the fascination of great art, I wondered, of seeing "originals"? I'm convinced that the central reason is that we see ourselves as worshipping, in a sense, at the shrine of the imagination. We were not simply viewing misty English seascapes or flaming sunsets, but captives of the sense of wonder which the canvases preserved.

In describing the power of the imagination, no one has rivalled the clarity of Wallace Stevens, who wrote:

"God and the imagination are one—

How high that highest candle lights the dark"

But that 'highest candle' that lights the dark is not by any means reserved for what we might refer to as "high art". The best pictures, after all, are not in the galleries, they are in our imagination as we experience even the most everyday aspects of life. It is the same imagination that we use, whether in the gallery or the grocery store, or catching the shifting patterns in a prairie sunset—and Stevens' metaphor is appropriate to each experience.

Mary Warnock, an authority on aesthetic education in early childhood, views the imagination as one of life's great bonuses, since it provides the capacity for seeing more in an experience than meets the senses, thus becoming our ultimate source of pleasure. She maintains that

> . . . the imaginative child, . . . is the child who can see the potential of the table in the sitting room as a hiding place, as a place from which to shoot his enemies, in which to hide from the winter storms, in which to go to sea. Now it is this ability to see more in the immediate that is, I believe, our deepest source of pleasure in the world. And this is one of the reasons why we need to educate children to be imaginative. For the aim of education is pleasure.
> (Warnock, *Imagination* 78)

In considering the role of the imagination as a major influence upon the expressive lives of children, I have focussed on three main questions:

1. What is the imagination?
2. Are there particular and relevant findings in current research?
3. How do we cultivate or nurture the imagination in children?

First of all then, we will consider some definitions—some helpful observations by writers, poets, philosophers and those concerned especially with the formulation of images and ideas. Secondly, we must look briefly at current research regarding the nature of the mind—about how we come to know what we know—put more simply: how we imagine! Having thus convinced you (or simply reminded you) of the importance

of imagining, it seems appropriate that we consider ways in which this special faculty, which Christopher Fry refers to as our "sixth sense", can be cultivated and nurtured. Certainly there are particular attitudes, conditions and roles that can contribute to a setting in which this cultivation is possible. While priorizing such a list may take us well into the night, we will consider at least two areas that seem to be intimately related to the expressive arts, specifically, perceptual awareness and integration.

My thesis is simple and straightforward: the role of the imagination is central to our capacity to fully experience life. Simone de Beauvoir has put it very well in her claim that the imagination is everything—knowledge is nothing, while Einstein states quite unequivocally that "Imagination is more important than knowledge". To advocate such reverence for the imagination could be potentially hazardous in many situations. This audience, however, provides a sense of security since, by the very nature of your work and your association with young children, your awareness of the power of the imagination is very real. But since we are focussing on the expressive world of children, the role of the imagination takes on a particular, indeed overwhelming stature, and becomes as Mary Warnock suggests " . . . the source of all pleasures", emerging therefore "as the central concept for education".

Having made such sweeping claims for the art of imagining—of making images—it seems essential that we take a moment to define or re-define the very term which, while widely used, has come to mean everything and therefore nothing. Howard Gardner makes the point that . . . "There is a universal human temptation to give credence to a word to which we have become attached, perhaps because it has helped us to understand a situation better. . . . 'intelligence' is such a word; we use it so often that we have come to believe in its existence, as a genuine tangible, measurable entity, rather than as a convenient way of labeling some phenomena that may (but may well not) exist" (Gardner, *Frames of Mind*, 69). 'Imagination,' too, is such a word, and its existence much more real!

Advertisers love the word and toss it around quite freely—some typical examples: "Imagine getting two for the price of one" or "Imagine yourself at the wheel of a Cadillac convertible". Recently I noticed a billboard with the simple message: "Bacardi and a little imagination". Frequently, of course, to imagine is to be irrational and we hear such phrases as "It's all in her imagination" or "It's all in your head!" Therefore, as Mary Warnock points out, " . . . one really needs to think where and in what context one really wants imagination to flourish". Her observations in this regard are specific and helpful:

> It seems to me that the crucial aspect of imagination is that it is a concentration on *what is not the case*. And this immediately links up with one of the obvious uses of the word in ordinary language.
>
> So it's embedded in ordinary language that the imagination is concerned with what is not. But if you take that thought a little bit further it seems very obvious that one of the crucial human abilities is to be able to think of things in their absence; that is to say, when they are not actually in front of you. And if you think particularly about the phenomenon of language, it will become obvious that this is what language is for. We think of possibilities as well as

> actualities; and this is the role of the imagination. It is to think of things, not as they are, but as they might conceivably, or nearly inconceivably, be. So the relevance of our human ability to envisage what is not the case is at the centre of what we mean by imagination.
>
> (Warnock, 74)

And so the initial question which the title poses: "Can you imagine?", might logically be restated in numerous ways, retaining and yet extending our definition. We are talking essentially about creating, about inventing and therefore expressing. We are talking really about envisioning the entire spectrum of possibilities. But we know very well that imagining, and inventing, and envisioning the possible, have not been high priorities in education. They are, at best, free time activities that have not really achieved respectability. They are seen as having some loose association with the arts and creativity (whatever that is!) but generally, the aesthetic—the imaginative are viewed as a separate entity—at best an accompaniment to the main course—an extra—a frill. And strangely enough we proceed in this direction in spite of expert opinion which has tried to convince us otherwise. We have been warned repeatedly that the imagination is indeed the central concept of education. But, for the most part, the message goes unheeded.

Certainly one of the most articulate proponents of the expressive arts is philosopher Harry Broudy who not only argues that they have a vital role to play, but that they should in fact be considered among the 'basics'. Broudy reasons that if reading and arithmetic are codes in which ideas are stored, " . . . then one might also think of the artistic skills as learning the codes by which one penetrates the realm of ideas and feelings in the form of images in various media". Aesthetic education is recognized as fundamental in terms of its broad cognitive function. Broudy maintains that

> Aesthetic experience is basic because it is a primary form of experience on which all cognition, judgment, and action depend. It is the fundamental and distinctive power of image making by the imagination. It furnishes the raw material for concepts, and ideals, for creating a world of possibility.
>
> (Broudy, 131-141)

Broudy holds that the very source of meaning is the imagination, both in terms of "everyday knowing, thinking, feeling and choosing as it is in the highest reaches of science and art." With reference to the electrical configurations of media, he notes that both Madison Avenue and successful politicians take advantage of images, society in general responds to these patterns of meaning, "yet the curriculum of the school does not reflect the centrality of aesthetic experience . . . the development of the imagination is left to chance".

Elliot Eisner is a leading advocate of the arts and their potential in the area of cognition. Speaking with inter-disciplinary authority from a position of academic leadership in art education, curriculum and naturalistic research, his viewpoint seems both logical and convincing. Eisner argues that the cultivation of literacy in both auditory and visual forms of representation is prerequisite to the ability to manipulate conceptions of the world imaginatively, thus reinforcing Broudy's position in which the imagination is seen as the source of meaning. Eisner, in fact, goes somewhat further and

emphasizes the linkage between aesthetic education and expressive communication:

> Education in the arts cultivates sensitive perception, develops insight, fosters imagination, and places a premium on well crafted form. These skills and dispositions are of central importance in both reading and writing. When they are neglected or absent the ability to write well and read is itself impoverished. Without them children are unlikely to write, not because they cannot spell but because they will have nothing to say.
>
> (Eisner, 18)

I referred earlier to my admiration for the writing of Wallace Stevens, and in particular his conviction that God and the imagination are one, which he conveys through the metaphorical linking of the spiritual with the highest form of illumination. In contrast, Stevens lightens the mood in his "disillusionment of Ten O'Clock", making a similar point, however, as he writes a tongue-in-cheek lament for a society that seems to choose the darkness in its failure to value the imagination:

> The houses are haunted
> By white night-gowns.
> None are green,
> Or purple with green rings,
> Or green with yellow rings,
> Or yellow with blue rings.
> None of them are strange,
> With socks of lace
> And beaded ceintures.
> People are not going
> To dream of baboons and periwinkles.
> Only, here and there, an old sailor,
> Drunk and asleep in his boots,
> Catches tigers.
> In red weather.

And why indeed should 'tigers in red weather' be accessible only to the drunks? Must we remain shrouded only in the white nightgowns of conformity, insensitive to the color of possible worlds—missing the wonder of life and missing the periwinkles?

It must be acknowledged that poets have made an astounding contribution in terms of giving clarity to our psychological insights. Wallace Stevens is one of many in a long tradition of writers who pondered the powers of the mind. Coleridge, for example, was preoccupied with the imagination, and wrote the following: "The primary imagination I hold to be the living power and prime agent of all human perception" and in *A Defense of Poetry*, Shelley argued that "We want the creative faculty to imagine that which we know." By contrast, I have noted, in the writing of contemporary psychologists, a quality that is distinctly poetic. I refer particularly to the work of Howard Gardner, whose major work in the area of multiple intelligences bears the largely metaphoric title *Frames of Mind* and to Robert Ornstein's recent book *Multimind*.

May I quote just briefly from chapter five of *Multimind*, the title of which is "Piece of Mind 1: On the Patchwork Quilt of Talents in the Brain". Very early in the chapter, Ornstein writes: "If you look at the brain this way, you will see it divided into different and well defined areas, each of which posesses a rich concentration of certain abilities. If marked, they would look just like a set of patches on our folded quilt" (Ornstein, *Multimind*, 54). Gardner's 'poetry' is similarly rich in metaphor:

> It is best, then, to think of the various intellectual competences introduced here as a set of "natural kinds" of building blocks, out of which productive lines of thought and action are built. Not to push the analogy too far, we might think of the intelligences as elements in a chemical system, basic constituents which can enter into compounds of various sorts and into equations that yield a plethora of processes and products. These intelligences, while initially raw and unmediated, have the potential to be involved in symbol systems, to be enculturated through their implementation in cultural tasks.
>
> (Gardner, 279)

Incorporating the generally accepted theory of two distinct hemispheres in the brain—rational left and the more intuitive right, researchers in the area of multiple intelligences have gone considerably further—indeed several giant-steps further. Their startling conclusions suggest that:

> INSTEAD OF A SINGLE, intellectual entity that can judge many different kinds of events equably, the mind is diverse and complex. It contains a changeable conglomeration of different kinds of 'small minds'—fixed reactions, talents, flexible thinking—and these different entities are temporarily employed—'wheeled into consciousness'—and then usually discarded, returned to their place, after use.
>
> (Ornstein, 25)

Now, at this point, some of you may very well be saying: "Wait just a minute. Either I've missed something or you're moving too fast!" Just how do we get from 'Tigers in Red Weather' to 'Multiple Intelligences' and what does all of this have to do with the expressive world of children or with the worlds of wonder and possibility? My very strong hunch is that there is a significant and striking relationship. I'm convinced that those processes which we speak of as 'imagining', 'creating' and 'inventing' are really manifestations of the multimind in optimal production. When Gardner speaks of the intelligences as "elements in a chemical system . . . which can enter into compounds of various sorts . . . into equations that yield . . . processes and products", he is simply describing the process of making metaphors, of seeing connections, images and patterns, and yes, the worlds of possibility.

While researchers in the areas of multiple intelligences don't presume to have all the answers, they have evidence to suggest quite clearly that we have been on the wrong track. We have been dead wrong in most of our assumptions about the mind and the nature of intelligence. The fact that we are still hung up on I.Q.'s and I.Q. tests is, to say the least, depressing. But things could always be worse—the Egyptians associated thought with the heart, and judgement with the kidneys; we are moving in the right direction, at least, we have made some progress! The validity of, and the

logic supporting the Multiple Intelligence theory is reemphasized in this summary by Robert Ornstein:

> The idea that we have one rational mind seriously undersells our diverse abilities. It oversells our consistency, and it emphasizes the very small, rational islands in the mind at the expense of the vast archipelago of talents, opportunities, and abilities surrounding them.
>
> (Ornstein, 17)

Certainly, one of the most profound statements about how our mind functions, is Shelley's urging that "we want the creative faculty to imagine that which we know" and in that same context he said—(and it's probably more urgent even now, than it was some one hundred sixty-five years ago): "we want the generous impulse to act that which we imagine; we want the poetry of life: our calculations have outrun our conception; we have eaten more than we can digest." (Shelley, "A Defense of Poetry", 151)

I suggested earlier that we should first of all attempt to arrive at a definition of "imagination"—one that would reflect its importance to creative expression. In turn, it seemed in order that we should glimpse, however briefly at some of the quite startling research in the area of cognition—research which, I believe, should affect our entire approach to education. Thirdly we would consider the practical, and examine ways in which we can cultivate imagination in the lives of children. I can assure you that this present task is by far the most complicated part of the assignment, but I know that I'm talking to the experts in this area—you might very well tell me more about the practical side of things then I will ever know. So I will only point to some of the larger issues and emphasize two aspects which seem to be of overwhelming importance, specifically: the training of perception and integrative teaching and the multisensory.

We must, above all, give priority to the *perceptual* rather than the *conceptual*. Sensory experience should be seen as important in its own right, rather than as preparation for the formal sequential setting. We must direct the child's attention to the sound of music rather than the structure of music—*making* music and responding to music first—admitting of course, that ultimate understanding and appreciation comes through conceptualization—but *we can't begin there*.

Children should be encouraged to play and sing by ear (which is really by heart!). And, composition should be a major focus. Through the use of tone bells, percussion, 'found sounds' and of course children's voices, group composition is a valuable if not indispensable activity. Recording their compositions, sharing and analyzing the expressive content, will prove a natural bridge to perceptual training.

If it is our purpose to give priority to the perceptual, as it surely must be, we must acknowledge the need for training in the area of perceptual awareness. We might well be guided by William Blake's classic statement: "If the doors of perception were cleansed everything would appear to man as it is, infinite." In her essay, "Imagination and Aesthetic Literacy" Maxine Greene makes a similar point; borrowing from Virginia Wolfe she speaks of "shocks of awareness" in supporting her philosophy: "My concern is to enable persons to break through the cotton wool of daily life and to

live more consciously. It seems to me that engagement with the arts makes possible moments of being . . . "

There's a catchy little song, that children love to sing, called "Sing a Rainbow", which begins: "Listen with your eyes and sing everything you see"—actually very good advice—sound has color after all, just as color has sound! Sometimes the *shape* of words conveys more meaning than the sound. As the title of the song suggests, through engagement with the arts, the reality of sensory unity as an expressive force, becomes clearly apparent. An approach to the expressive arts which acknowledges the aesthetic implication of sensory correspondence seems particularly appropriate to a generation in which the media have become the environment. The poetry of advertising and the colorful textures of television are more real than skies and grass and water. The realization that our eyes can help us to feel or hear or taste, transcends poetic metaphor. The diminishing priorities of the individual disciplines in aesthetic education, seem directly related to the reality of an electric environment in which "anything can be a poem if we experience it in a certain way."

The unity of sensory experience in the child's world contributes to a view of artistic communication that is whole and unshattered. The refinement and extension of integrated perception is basic to education in the arts, and might well be viewed as a primary aim. Mary Caroline Richards, artist and poet, alludes to this sensory continuum:

> When we are children we make poems easily because we offer ourselves so readily. The child in us knows, when we are grown, that almost anything can be a poem if we experience it in a certain way—with that inner feeling that is more than the words.
>
> (Richards, *The Crossing Point*, 143)

A major concern in education, therefore, is one of preservation. How can we nurture the child's capacity for making "poems easily", transferring this inner sensitivity to the larger forms of life? The unity of artistic communication must be acknowledged and a synthesis sustained.

Recognition of the value in working toward a synthesis of the arts is a common theme in the writings of educations in a variety of disciplines. Art educator O. Charles Giordano maintains that "Pre-school children are automatically engaged in multisensory experience. They do not have to be taught how to behave synaesthetically." Noting further, that "All of the child's senses are still related, one to another, before he goes to school," Giordano describes the linear, fragmented, one at a time approach of the schools as a threatening schizoid activity. (Giordano, *After Art Education*, 16)

Murray Schafer, Canadian composer and music educator, expressing a similar point of view, sees the school as responsible for shattering the multisensory experiences of children and thereby separating the experience of art from the flow of life:

> For the child of five art is life and life is art. Experience for a child is a kaleidoscopic and synaesthetic fluid. Look at children playing and try to

> delimit their activities by the categories of those known art forms. Impossible. Yet as soon as those children enter school, art becomes art and life becomes life. They will then discover that "music" is something which happens in a little bag on Thursday morning while on Friday afternoon there is another little bag called "painting." I suggest this shattering of the total sensorium is the most traumatic experience of a young child's life.
>
> (Shafer, *Creative Music Teaching*, 232)

James Moffett's concerns regarding curriculum structure lend parallel emphasis to Schafer's criticism. The integrative factor in Moffatt's view is "... the human capacity to symbolize first- and second-hand experience into an inner world to match against and deal with the outer world." He observes that "the infant does this already," further, that it is not taught but rather "exercised."

> It operates integratively on all fronts at once, at all ages. Education as we know it hinders the growth of this capacity perhaps more than it fosters it. The learner expends most of his intelligence coping with the demands of arbitrary contents and arbitrary schedules instead of using his native apparatus to build his own knowledge structures from what he and others have abstracted.
>
> (Moffett, *A Student Centered Language Arts Curriculum*, 6)

Experiencing the texture and the rhythm of words—the liquid or abrasive quality of language and the shape of sounds, is basic to aesthetic experience. To respond fully to the fresh chromaticism of a Monet sky, or the vibrant agitated rhythms of Van Gogh's *Starry Night*, involves all of the senses. Through multisensory teaching, children can come to understand that "... if you listen, / You can hear blue, / In wind over water, / And wherever flax blooms, / And when evening steps into, / Lonely rooms." (O'Neill, *Hailstones and Halibut Bones*, 28) A curriculum which acknowledges the aesthetic implication of integration and the multisensory seems particularly appropriate to a generation in which "... by a nerve network of electronic sensing ... our fluent media nervous system is linking our social brain ... giving us glimpses of universal human qualities that illuminate our narrow ways and show us our connectedness." (Ferguson, *The Aquarian Conspriacy*, 129)

For all children, and especially those who simply *exist* in a very barren world, the 'fringe benefits' or bonuses which the imagination provides should, in fact, be counted among the essentials of life. Wallace Stevens emphasized this need in the following reference to the imagination:

> It is part of our security. It enables us to live our own lives. We have it because we do not have enough without it. This may not be true as to each one of us, for certainly there are those for whom reality and reason are enough. It is true enough of the race.
>
> (Stevens "Imagination As Value", 150)

The fact that society in general has evidenced a particular and heightened interest in products of the imagination is reassuring. This trend should not seem surprising, given the fact that the imagination is our deepest source of pleasure. Encouraging

research trends in the area of cognitive psychology present a further ray of hope for the inventive and expressive world of children. Finally, I have emphasized the need for perceptual training and integrated learning as the most logical base for nurturing the imaginative mode. I have used such terms as creating, inventing, and imagining, quite interchangeably in referring to processes which deal with the worlds of possibility. In closing may I share with you a phrase which seems especially fitting, that of "Writing on the hearts of children." To me, this elegant metaphor captures the essence of imaginative teaching—that elusive process that seeks to awaken the sense of wonder. It is the theme of a brief poem by Claire Tree Major, appropriately titled "Are You Ready for The Question?"

Would you set your name among the stars?
Then write it large upon the hearts of children
They will remember.
Have you visions of a finer, happier world?
Have you a word of hope for poor, blind, stumbling human kind?
Then give it not to stupid, blundering man,
Give it to the children.

In their clear, untroubled minds it will reflect itself a thousand fold
And some day paint itself upon the mountain tops.
Somewhere a Lincoln plays and learns and watches with bewildered gaze
This strange procession of bewildered souls.

Have you a ray of light to offer them?
Then give it, and some day it will help
To make the torch that they will use
To light the world to freedom and to joy.

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A Sense of Security: Parent and Child Views Regarding Work-Related Day Care

Nina Howe and Lora Moller

Abstract: The views and attitudes of the parents and children who use two work-site day care centers were investigated in a case study of the Mutual Life Insurance Company Day Care of Waterloo, Ontario and the Place Ville Marie Garderie of Montreal, Quebec. Parent questionnaires were employed to determine the factors that influence selection of on-site care, parental perceptions of how on-site day care has effected their job performance and family interactions, and finally, parental attitudes regarding day care in general. Five-year-olds were interviewed to assess their feelings about attending on-site day care. Findings indicate that both parents and children derive a strong sense of security knowing that the other is close-by. Furthermore, the on-site experience is clearly conducive to positive family interactions.

Increasing numbers of families require high-quality child-care arrangements. However, controversy still surrounds the benefits and drawbacks associated with using group day care. One issue of concern is the possible effects of group care on children's social, emotional and cognitive development; educators have been concerned with how to make this an intellectually beneficial experience as well as an enjoyable time for youngsters. Another concern involves selecting a center appropriate for meeting the needs of all family members; thus, it is important to provide parents with information from which they can make well-reasoned decisions.

Controversy about the effects of day care has focused on young children's physical, cognitive and social-emotional development. Burton White (1981), for example, advocates that women, with few exceptions, should stay home with their young children. He argues alternative care experiences are deleterious to children's cognitive and emotional development, as well as to the establishment of stable parent-child relationships. In contrast, the authors of a number of recent reviews of the literature have reached different conclusions (Belsky & Steinberg, 1978; Etaugh, 1980; Hoffman, 1979; O'Connell, 1983). Substitute caregiving does not adversely affect young children's emotional or cognitive development when they are placed in

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high quality centers with little staff turnover and warm, emotionally expressive and responsive care-givers (Anderson, Nagle, Roberts & Smith, 1981; O'Connell & Farran, 1982; Zeskind & Ramey, 1981). In terms of parent-child relations, Hoffman (1979) found that working mothers often compensate by spending more time with the child when the two are at home together. Additionally, Stuckey, McGhee and Bell (1982) reported that day care fostered amiable family interactions; mothers who were unemployed but wanted to work, voiced more criticisms and complaints than mothers who by choice either worked or stayed at home. Farel (1980) also found that children whose mothers' attittudes toward work and employment status were congruent, were better adjusted and more competent than children whose mothers' behavior and attitudes were not congruent.

The optimal circumstances for ensuring happy children include positive parental attitudes about both working and using group care settings, as well as actually placing children in high-quality centers with low staff turnover, a low child-adult ratio and responsive, caring staff. However, a confusing array of day care arrangements are available to Canadian parents such as profit, non-profit, work-site or employer-sponsored day care (we distinguish between work-site day care that is near the place of work but functions independently of the employer and employer-sponsored day care that has a direct tie to the company). Parents faced with deciding among the possibilities need information regarding the pros and cons of each type of day care, however little data exists on this topic. A survey of the literature indicates that work-related day care has been investigated from the point of view of the employer and the parents (Mayfield, 1986; Verzaro-Lawrence, LeBlanc & Hennon, 1982), while the views of the teachers and children have generally been ignored. A recent study (Howe & Moller, 1987) examining the history, structure and functioning of two work-related day care centers revealed that on-site care was associated with low staff turnover, high job satisfaction and a strong sense of professionalism among the teachers. In addition, we were interested in how the parents and children using work-related day care felt about this type of arrangement. One would expect that having children in close proximity to the parents' place of work would be less stressful for both parties and furthermore, might also encourage greater parent-child interaction. Thus, we conducted a case study of two work-related day care centers and elicited the views of parents and preschoolers regarding the pros and cons of this type of group child care.

The first center we investigated, the Mutual Life Insurance Company Day Care Center of Waterloo, Ontario functions as a department within the company and as such, can be considered a pure example of employer-sponsored day care. The second center, the Place Ville Marie Garderie of Montreal, Quebec serves the employees of a downtown shopping mall and adjoining business offices. While the developer of the Place Ville Marie complex, the Trizec Corporation, was involved in establishing the garderie and continues to have a representative on the governing parent board, the center functions as an independent non-profit corporation. Therefore, Place Ville Marie can be regarded as an example of work-site rather than a company-sponsored day care. It should be noted that both centers are considered to be of very high quality based on excellent teacher-child ratios, post-secondary level of teacher training and creative and developmentally-appropriate programming.

The present report focuses on the views and attitudes of the parents and the feelings of some of the older children enrolled in the centers. While there is some literature on parent views about on-site day care, the feelings of the children appear not to have been previously solicited.

Parent Views About Work-Related Day Care

The two directors handed out and collected the questionnaire (available in English and French) which solicited demographic data and parent views about their selection of on-site day care, the effects of using on-site care on themselves and their children and finally their attitudes about day care in general. This questionnaire was adopted from a previously employed parental measure (Jacobs & Quinn, 1987). Parents responded to the 23 items on a 5-point scale; number 5 indicated that the items influenced their attitudes a great deal and number 1 indicated no influence at all. The return rate for questionnaires from Mutual Life was 80% (32/40) and 51% (19/37) from Place Ville Marie.

The samples in both centers were mainly composed of married, two-parent, two-children families with only one child in day care. The vast majority of parents (88%) reported that on-site day care was a matter of preference over other alternatives such as community day care or private home care.

A series of t-tests was conducted to determine if there were differences in the attitudes of parents in the two centers. Only two significant differences were found: Mutual Life parents were more likely than Place Ville Marie parents to report that their decision to use the on-site day care had been influenced by company promotion, t (48) = 2.90, $\rho < .006$, and by the fact that the day care staff were company employees, t, (30) = 3.54, $\rho < .001$. These findings corroborate the views of the teachers, directors, and company representatives (Howe & Moller, 1987) that the ties between the day care and the company were stronger and clearer at Mutual Life than at Place Ville Marie.

Since these were the only differences between the two samples, the following findings are based on the reports of parents from both centers. According to all the parents, a number of factors influenced their decision to use on-site day care; percentages are based on those parents who rated the items as a 4 or 5 on the scale suggesting that these items greatly influenced their opinion. Parents reported using on-site care for the following reasons: convenient location (88.2%), easy access to the child (86.3%), a safe environment (86.3%), high quality care (98%) and an opportunity to be close to their child (84.3%). The pattern of findings would seem to indicate parents had the best interests of the child in mind when they opted for on-site care. A number of recent articles in the popular press providing information on how to select the best day care center (e.g., Gibson, 1985; Laver, 1985; Young, 1986) would appear to mirror the concerns expressed by the parents in our sample.

Parents were also asked to rate the effects of using on-site care on themselves and their children. Approximately, two-thirds of the parents in both centers reported that using on-site care had benefits for themselves by reducing guilt (54.9%) and stress (66.7%) about placing their child in day care and increasing morale on the job (64.7%); no parent reported that having a child in on-site care was disruptive to their work and few felt it inhibited job-related social interactions (13.7%). Overall, the

parents clearly viewed on-site day care as having a beneficial effect on their work lives. In addition, the majority of the parents reported on-site care was a positive experience because it had increased their child's sense of security (74.5%) and happiness (72.6%). Taken together, these would seem to be important factors in contributing to a happy, well-functioning family. Perhaps in recognition of their positive feelings, a number of parents indicated that the availability of on-site care should be an important factor in the recruitment of new employees (58.8%) and might be important in their own future job search (64.7%); these findings also provide support for employer claims about the benefits of establishing a day care center (Mayfield, 1986).

Finally, we asked parents about the influence of using on-site day care on their attitudes about day care; 62.7% reported that using on-site care had made them feel more positive about day care, that day care was more than mere baby-sitting (80.4%) and there was a need for high quality, well-trained teachers (84.3%). We conclude from this information that the presence of high quality work-site day care is an effective means of furthering public education about the importance of good care and the need for well-trained teachers. In essence, it would seem that parent users become advocates of high quality day care experiences for their young children.

Children's Views About Work-Related Day Care

Our review of the literature indicated a lack of research on how the children feel about attending work-related day care. Thus, we interviewed the five-year-olds in each center (Mutual Life *M* age = 5.1 years, range = 4.8 to 5.4 years; Place Ville Marie *M* age = 5.3 years, range = 4.8 to 5.5 years); 10 girls and 6 boys were interviewed in English and/or French according to their linguistic choice. Questions focused on what the children liked and disliked about the centers, if they would rather come to day care or stay at home, and how they felt about being close to their parent's place of work. Most of the children were eager to talk to us and provided some interesting comments.

When asked what they liked about their day care center, the children focused on specific activities (e.g., music, art) and equipment (e.g., blocks, housekeeping center), but above all, they mentioned the opportunity to play with their friends. Dislikes focused on the usual stressful times for early childhood educators, naptime and clean-up, but also included some eclectic answers such as broccoli and not being able to chew gum. The children produced positive responses about 3.5 times more frequently than negative ones, which may be one indication of how much they enjoy their time at the day care. In fact, we asked the children if they would rather come to day care or stay at home with their parents; 60% indicated they preferred day care because in the words of one youngster, "it's funner" or as another said, at day care "you can do whatever you want. At home your parents have to tell you what to do and what not to do". The response of another little boy indicated some understanding of the realities of modern life; when asked to choose, he said, "On holidays you stay at home and at day care times we come here". When asked a second time to make a choice, he selected day care, because he liked to play with a particular friend.

All the children could identify which parent worked at Mutual Life or in the Place

Ville Marie complex and 56% came to work with their mother, 31% with their father and 13% accompanied both parents. All the children indicated that they liked being close to their parent's place of employment and that being in an on-site day care made them feel happy. We can deduce from the following statements that the children also felt a sense of security in being close to their parents:

"If you want your mom or dad you can always get them."
"Cuz my mom comes to visit me when it's outside time."
"I like to see her building." (At Mutual Life the day care and playground are adjacent to the office tower.)
"She doesn't have to walk so far (to work) and I don't have to worry about it."

The children all reported that their parents were happy about being close-by and 75% indicated that their parents sometimes visited during the day, usually at lunchtime. According to the children, parental lunchtime visits were always pleasurable because the two had spent time together. How did the children feel when mom or dad returned to work after the visit? 58% reported feeling happy and in the words of one child, "I feel good, cuz there's still something to do at the day care." Although a couple of children reported feeling sad after a recent parent visit, others said they had only felt sad after a parent visit when they were younger and "babies", but now it was a happy experience for both. Nevertheless, one little girl said both felt sad when her mother returned to work because "she wants to stay home with me but she's in work"; even young children are sensitive to the dilemma that faces some working mothers.

Conclusions

Overall, both the parents and the children in our sample considered work-related day care to be a positive experience. More specifically, the parents reported that the use of work-related day care reduced their anxieties about placing their child in group care and left them freer to concentrate on job-related responsibilities. Moreover, it appeared that the parents' sense of security was enhanced by their perception that their children were happy in the day care center. The parents' views regarding the purpose of day care as more than mere babysitting demonstrated a recognition of the value of the day care profession.

The children appeared to enjoy their day care experience and spoke of the centers in warm, affectionate terms. Clearly, many preferred coming to the centers rather than staying at home, because of the greater opportunities for play. Moreover, being in work-related day care appeared to give the children a sense of security because their parents were near-by; additionally, from the child's point of view, lunch-time visits were pleasurable and warmly anticipated.

One of the more striking findings of our study was the concordance between parent and child views about work-related day care; both adults and youngsters clearly focused on the secure and positive aspects of attending job-related day care. On the basis of the views of the families in our sample, we would argue that placing a child in work-related day care may alleviate some negative concerns about using group care. By virtue of the location, more frequent and relaxed parent-child

interactions are possible in work-related centers than are available in other day care arrangements. Furthermore, the close proximity of parents and children appears to be associated with a sense of security in both parties. Seen in this light, on-site day care may be an important factor in building stronger family relationships.

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Breaking Down Barriers to Collaboration Between Parents and Educators: A "Non-Deficit" Approach

Stephen Fraser, Arlene Kasting and Glen Dixon

In spite of the legislative mandate for parental participation in the decision making process in both the U.S. and those Canadian provinces with legislation in place, there is still a high degree of resistance to full and equal collaboration with parents of exceptional children by educators. Research has identified both parent and profession centered sources that have contributed to the build up of these barriers to collaboration. While the debate concerning the value of parent involvement on the learning outcomes of the child is necessary to optimize parental participation, continued rhetoric by both sides may well serve to accentuate those impediments to collaboration that already exist. Rather than viewing recent legal decisions as threats to our traditional roles, an alternative approach based upon a "non-deficit" view of parents will more constructively facilitate the compliance which either already is or soon will be a fact of life for special educators.

Introduction

The recent Nova Scotia "amendment" of Elwood vs Halifax County-Bedford District School Board in June of 1987, unequivocally asserted the rights of parents of special needs children to be equally and collaboratively involved in all phases of the education process of their children. The implications of this "amendment", based upon section 15 of the Canadian Charter of Rights, has already received strong reaction from Canadian educators (BCTF, 1987).

A review of the historical relationship between parents and educators in both the U.S. and Canada provides insight into the foundation of this reaction and questions the basic assumption upon which it is based. The purpose of this paper is to examine the underlying assumptions of the traditional roles of parents and educators in the

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decision making process for exceptional children and offer suggestions in facilitating a more collaborative approach.

The Elwood "amendment"

The case involved the parents of an eight-year-old exceptional child, Luke Elwood and the Halifax County-Bedford School Board. Luke had been enrolled in integrated preschool programs in the years 1981-82 and 1982-83; was enrolled in special classes provided by the school board for the school years 1983-84, 1984-85, and 1985-86; and was currently enrolled in a regular grade 3 class with supports provided by the school board in the child's own geographic neighborhood. It was the opinion of the parents that the current integrated placement was in their child's best interest, that he had made certain advancements in this placement and that he should remain with age appropriate peers and attend school in his own neighborhood throughout his entire schooling. Further they as parents felt they had a right, under the Charter of Rights, to be equally and collaboratively involved in the education decisions for their child. The judgement not only supported the parents in their assertions but went as far as to define their role in terms of equal collaboration in all decisions regarding the education of their child. The case is unique in that it was "unusually well funded and promoted by interest advocates who selected Luke Elwood as a potential winner for their general view that parents should have the right to truly exceptional services from the public school system and from teachers, individually and collectively, to meet the unique needs of their handicapped children within a regular school setting" (Buzza, 1987, p1). This collective legal action on the part of "interest advocates" is significant in that it parallels the legislative change route in the U.S. prior to PL94-142 and was not believed to be a probable route for legislative change in Canada (Berger, 1977; Mackay, 1985). With the absence of the provision for "class action" in the Canadian legal system, the usual responsibility for such a claim in the past rested solely on the individual often at considerable expense and effort on the part of the family unit (Trehern and Rawlik, 1979). In contrast, the collective approach on the part of "interest advocates", while still not fully "class action", is sufficiently similar to remove the impediment to legislative change which had been the burden of the individual family under Canadian law.

"It may take a while, but I expect this case and others like it to have a profound impact across the country, with the Charter and fledgling interest groups as drivers for changes through the courts, or the political process." (Buzza, 1987, p1).

Background for the Reaction

To say that most professional educator groups are alarmed at the implications of this "amendment" if applied in other jurisdictions, is not surprising in view of the historical relationship between parents and educators of both normal and exceptional children in the public school system. A review of the literature reveals that programs for parents of both normal and exceptional children have historically been based upon a "deficit" view of parents in relation to their role in the education process (Powell, 1984; Cutler, 1981). The assumption has generally been that the parent is somehow lacking or void of certain skills that only the professional can provide. As Cutler, (1981) has termed it, most professionals hold to the "mere parent myth" as it applies

toward the "collection of beliefs held by some school people that parents always know less and are less capable than professionals" (p19). Accordingly, what parental involvement there has been in the decision making process in schools has generally been a passive one of listening or providing information to the professionals (Goldstein, Stickland, Turnbull and Curry, 1980; Yoshida, Fenton, Kaufman & Maxwell, 1978).

Although the American federal law, PL94-142, in 1975, confirmed the rights of parents of exceptional children to be involved in the education process of their children, there is still a high resistance and suspicion to full parent/educator collaboration (Osman, 1979). In the face of mounting litigation in the U.S., several authors have begun to question the basic assumption underlying the "mere parent myth" (Gliedman & Roth, 1980; Turnbull & Turnbull, 1978). It has been suggested that not only is reciprocal parent educator collaboration desirable but it is an essential component of the learning outcomes for the child (Heward, Dardigad, Rossett, 1979; Rosenau, 1981; Schulz, 1982).

In spite of these assertions and the legislative mandate in both the U.S. and the Canadian provinces with mandatory legislation, little is known or has been sought regarding ways of optimizing parental involvement in the education process or examining the impact of parental involvement in the decision making process on the learning outcomes for exceptional children. It is a part of the special education field which is woefully in need of research (Morgan, 1982; Lusthaus, Lusthaus & Gibbs, 1981).

Several barriers to a more collaborative approach between parents and special educators have been cited: the medical model paradigm from which parents of exceptional children are viewed as patients who should cooperate (Gliedman & Roth, 1980); the fears and anxiety of parents themselves (Marlon, 1981); the perceived differences in socio-economic status between parents and educators (Gorham, 1975); the reluctance of professionals to involve parents (McLoughlin, 1981); and the use of teacher's professional identity to reinforce the concept of parents as outsiders (Golin & Ducanis, 1981; Schulz, 1982).

What is Known About Parental Involvement

Clearly the mandate of parental involvement in the individual education plan (IEP) process underlying PL94-142 in the U.S., the legislation in those provinces with mandatory legislation in Canada, and this "amendment" are all based upon the assumption that parental involvement is in the best interest of the exceptional child. "Special educators have long known that the one key to successful remediation is the active involvement of parents in a child's education." (D'Zamko & Raiser, 1981, p122). Morgan, (1982) has questioned the supporting evidence of this assumption. While conceding that some studies have suggested that parental participation in intervention programs for severely handicapped children is beneficial (Lillie & Trohanis, 1976; Tjossern, 1976), he views the claim of D'Zamko & Raiser, (1981) as more oof a "hunch" than a proven fact. "To continue to state unequivocally that parental participation is the IEP process clearly enhances the child's education is to justify public policy on grounds not currently supported or disproved by data" (Morgan, 1982, p37).

In spite of this expression of doubt, advocates of parental involvement remain steadfast in their assertion that parents should be involved and that their involvement has a direct bearing on the learning outcomes for the exceptional child, Schulz, (1982) has cited the following evidence in support of this view:

> "Parents often know more about their children than the experts they consult (Gliedman & Roth, 1980; Turnbull & Turnbull, 1978).
>
> Their relationships with their children existed before the school's and will continue long after (Michaelis, 1980).
>
> Parents provide continuity in the child's life that is missing from his or her school experience in the progression from teacher to teacher and program to program (Schulz, 1982).
>
> Parents more than any other persons, usually have the best interest of the child at heart (Schulz, 1982).
>
> Research shows that handicapped children progress much faster in all areas when their home environment supports and extends school programming (Heward, Dardigad, and Rossett, 1979, p6).
>
> Parent involvement is important in solving school problems and is useful in increasing activities in the home (Rosenau, 1981)." (p20-21)

What Role do Parents Want

In the Canadian study of the role of parents in the decision making process of exceptional children, Lusthaus, Lusthaus and Gibbs (1981) surveyed parents regarding their present and desired levels of participation in the IEP process. The findings suggest that while a majority of parents are satisfied with their role as information givers in the areas of discipline, class placement, evaluation, instructional grouping, transportation, and special resources, they want more than an informational role in three decision areas: the kinds of information kept on their children; medical services for their children; and transfer of their children to other schools. Although the study suggests that increased parental involvement and understanding of the educational process may well lead to further demands by parents to be more equitably involved in the decision process, it concludes that at least for the present "parents and professionals tend to have similar ideas about who should be making educational decisions" (p257).

The Challenge to Special Educators

Apart from the academic arguments for and against parental involvement in the IEP process, the legislative reality in both the U.S. and Canada is that parent participation in the decision making process of exceptional children either is or soon will be a fact of life for special educators. While acknowledging the need for continued research in optimizing this involvement (Morgan, 1982), continued rhetoric on the subject will only serve to accentuate the impediments to collaboration that already exist. As the Lusthaus study has concluded, at present we are not that dissimilar in our beliefs as to who should be making what educational decisions. "These similarities can be used as a basis for cooperation in the planning process, increasing the potential for improved services to students" (Lusthaus et al, 1981, p257). The challenge facing

special educators in Canada and the U.S. today is not one of defending historical role positions but rather one of breaking down barriers to collaboration and optimizing parental involvement through a "non-deficit" cooperative relationship between parents and educators of exceptional children.

Meeting the Challenge

How often have we heard the statement: parents are our first teachers. To deny that this is so would seem a shallow argument. As Schuiz, (1982) has noted, "parents are teachers. Whether they are good teachers is no more relevant than whether they are good parents" (p21). Schulz and others have also pointed out that although we recognize the individuality of students we often fail to give parents the same consideration. Like students, parents are also individuals. "Before they become parents of handicapped children, they were no more or less prepared for parenthood than were any other parents" (Michaells, 1980, p21). Any program meant to optimize parental involvement in the education process must clearly recognize these basic truths. "Awareness of the individuality of parents' backgrounds and needs as well as other factors is essential" (Schulz, 1982, p22). Selegman (1979) has identified several of these "other factors:" parent personalities, teacher personalities, problems arising from the nature of the child's handicap, parent reactions to the handicapped child, the relationship between the parents of the handicapped child, the relationship between the parents and the handicapped child, teacher stereotypes of parents of exceptional children, teacher anxieties, the prior experience of parents with educational professionals and the interpersonal skill of the teacher.

The ANCHOR Project (answering the needs of children through observation and response):

Over the past four years at the Child Study Center of the University of British Columbia, Dr. Glen Dixon, the center's Director, has been developing a "non-deficit" model of parent educator collaboration. Although the model, termed the ANCHOR Project, was originally designed to meet the needs of parents of non-exceptional children, a proposal has been developed to adapt the model to examine its use in breaking down barriers to collaboration between parents and educators of exceptional children. In its original form the model involves parents and their preschool children coming to the center one day a week to learn together. While the children attend a preschool program, parents meet together in another room with an educator-facilitator and observe the children through closed-circuit video transmission. The focus of the model is on the actual behaviours of the children, giving parents freedom and increasing confidence to develop their own ideas through guided observation and discussion with other parents and the educator-facilitator. The model is based upon three assumptions which would seem to be highly relevant to the question of programs for parents of exceptional children:

1. that the parenting role is worthy of recognition (Bronfenbrenner, 1979; Katz, 1980; Cochran, 1985);
2. that establishing links for the interchange of information and ideas between the school and social institutions is desirable (Cochran & Woolever, 1982; Wandersman, 1980);

3. that a collaborative relationship between parents and professionals is important to learning outcomes (Dokeckl, 1979; Powell, 1984; Lightfoot, 1980).

The adapted model will involve sample populations of regular and exceptional primary school children, their parents and teachers drawn from various lower mainland school districts of British Columbia and several different geographical locations across Canada. Pre- and post- treatment measures of barriers to collaboration which have been identified will be taken as well as direct observational data of learning outcomes for the exceptional child. It is hoped that this investigation will address the current challenge faced by Canadian special educators as posed by the Elwood "amendment", as well as provide a basis for future research with other exceptionalities. Finally it is anticipated that the nature of the "non-deficit" approach which encourages a respect for a large variety of culturally determined parenting approaches in dealing with behaviour issues of children, will be highly suited to serve the multicultural needs of the Canadian population.

Summary

Although the Elwood "amendment" has caused initial concern to Canadian special educators, a review of the historical relationship between parents and educators of exceptional children provides a basis for questioning the underlying assumptions upon which this reaction is based. The medical paradigm, parental anxiety, differences in socio-economic status, professional reluctance and professional identity have all been identified as barriers to a more collaborative relationship. These impediments and others have resulted in a "deficit" view of parents in terms of their value in the decision making process for exceptional children. While the debate over the empirical support of the impact of parent involvement on the learning outcomes for the exceptional child adds to the rhetoric, the legislative reality in both the U.S. and Canada is that parent participation either already is or soon will be a mandated fact of life for special educators. Rather than defending our traditional roles in this process, the challenge facing special educators today is one of optimizing parental involvement through a cooperative "non-deficit" approach. The ANCHOR Project is one such approach.

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Columbus Here and Now

Richard Courtney

> When you are seven years old and you have acted the role of Christopher Columbus, you never forget that it was YOU who discovered America.
> —Joseph Lee, *Play and Education* (1915)

When we try to understand the world, we dramatize it: in action when we are young; "in our heads" when we are older. If we rehearse an interview "in our heads," or catch ourselves talking to our image in a mirror, we glimpse, fleetingly, an underlying and fundamental human process that begins when we are very young.

Worlds of Difference

Human life and learning is a continuous process of differentiation. We are born, says William James, into "a buzzing, blooming confusion." It takes some days for the newborn baby to distinguish between light and dark (e.g., by turning the head when a light is turned on), or between silence and noise (e.g., by turning towards a sound). Maturation and learning throughout life continues this process. Learning names for objects, distinguishing between "through" and "threw," using one language for one context and a different language for another, explaining life through physics rather than chemistry—all such processes are increasing complexities of differentiation. Those who can do this best are said to be the most "intelligent."

What humans do in these circumstances is to work with the actual world by dramatizing it. Then "the actual world" and "the dramatized world" exist side by side and we alternate (or "flip") between them. We compare them—one is a model for the other—to arrive at "truth." That is the purpose of all kinds of fictional "worlds"; e.g., the play of children and the art of adults, the novel, the "world" of science, etc.

If we recognize this process, we can deal with it and use it. The seven-year-old in "the play world" acts "as if" he is Columbus for the purpose of learning. "The play world" provides inner meaning to what is to be learned. In "the mind's eye," he thinks "as if" he is Columbus: Columbus becomes a metaphor for the self—and within a metaphoric world that is parallel to "the actual world" (e.g., he is seven, he has a pimple on his forehead, etc.) The child externalizes this in dramatic action (he IS Christopher Columbus) so that the metaphors "come to life." "The play world" has its own

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reality, its own dynamics and meanings that can transfer to "the actual world." Yet the child increasingly distinguishes between the actual (the "real") and the fictional play (the "not really 'real' "). People function well if they can handle both worlds as alternatives. They work things out in their meta-drama and apply them to "the actual world": they "act out" the past and "'try out" the future.

If we do not recognize this process, there can be considerable danger. The most vivid example in adult life lies with those workaholics who assume that their "world of work" has an existence of its own—education, say, or politics. Often it is only a physical shock, such as being carried off to hospital, that awakens their realization that their "world of work" is not as "'real" as the actual world and that they must change their life-style.

In other words, parents, teachers, and others concerned with child rearing and learning have in dramatization a powerful learning tool available to them which, if mishandled, can create great problems for children as they mature.

Whole Experience

We must not be confused by some social scientists, psychologists in particular. There are two extremes amongst them: those who separate out thinking, learning and action (e.g., behaviourists and their "behavioural objectives"); and holists who view a human being as a total organism.

If parents and teachers follow behaviourists they can distort the nature and purpose of dramatization. To separate thinking, learning and action is to use abstractions. These are "maps" and, as Korzybski said, "the map is not the territory" (living experience).[2] In ordinary life, "maps" and "territories" seem to occur simultaneously; in fact, they alternate at great speed as two aspects of a total gestalt.[3] So it is with the actual and the dramatic. When children play and students improvise they are thinking, learning and dramatizing at the same time—and always in the present tense. All drama exists in the "here and now" as a total, living experience. This alternates with the actual: both the experiences we "live through."[4]

If we do discuss these elements separately then we must realize that they are, indeed, abstractions: that they can only make sense in the context of the whole human being. When children are playing at mothers and fathers, it is an abstraction merely to examine their physical play, or their social play, or the roles they take. In other words, when parents and teachers are making judgements about the work of children and students, they must assess thinking, learning and action as one whole.

Dramatic Thinking

Dramatic action IS thinking. When children play or when students improvise, they are "thinking on the feet."[5] What kind of thinking is this?

When children play at dentists, their inner dramatization is externalized in action. They have become players unifying thought and action. Objective social scientists might ask us to call their thinking "cognitive": classifying and labelling. Or they might ask us to call it "affective": emotional and social. But these terms are "maps": abstractions that are very different from the living experience of playing at dentists.

There is no thought that is entirely cognitive or affective. Thoughts, like actions, are whole. Yet any thought may have a bias: it may, for example, be more cognitive than affective, or vice versa.

Should we be forced to make "maps" about the dramatization process, however, we can say that the thinking involved emphasizes imagination. We think about two kinds of possibilities: those that might well be possible; and those of fantasy which are beyond the possible. When we transform such thinking into dramatic action, we put thought into practice: we are engaged in the possibilities of practical trial-and-error. But this does not mean to say that the process is not cognitive or affective: it is both, but given an imaginative emphasis.

Play and dramatic action is an external sign of students' mental work: it shows that activity is taking place "in their heads." But we must distinguish between two kinds of thinking that take place:

A TACIT knowing: knowing IN the experience (experiential knowledge). This is the unconscious, innate, intuitive, and embodied kind of thinking that occurs when students act. It is often the basis for common-sense beliefs.

When young children engage in sand play they may chatter within it, as part of the play. What they say is part of the playing: the language they use is NOT a replica of what they know about sand.

B EXPLICIT knowing: knowing ABOUT the experience: conscious knowledge that occurs when students talk afterwards about what they have played.

When talking about their sand play afterwards, they are at a mental distance from the playing. Even if they attempt to describe their sand play accurately they discover that their linguistic meaning is different from their experiential meaning.[6]

Tacit thinking cannot always be expressed in words. When we dramatize, "we know more than we can tell."[7] The knowledge we gain in play and dramatic action becomes something different when we try to put it into words.

When Jacques Derrida says, "Speaking is life, but writing is death,"[8] he is making a distinction between media: those which are very near human consciousness (e.g., speech, dramatization) and are processual in time like life itself; and those media which are at a further distance from our inner Being (e.g., writing, drawing) which exist in space—that are "fixed" and can be examined scientifically. In terms of child development, however, we can see that speech and dramatization emerge first while writing and drawing follow on later. Thus contemporary language arts teachers, using their practical knowledge,[9] emphasize a sequence: dramatization and speaking before reading before writing. Similar developmental laws operate in other forms of learning: thus, in the arts from generalized movement emerges dance, from which emerges sculpture (creation in three dimensions), from which emerges two dimensional art (we cannot learn in two dimensions until we have learned three dimensions). The more global the medium, the earlier it appears; discrete media follow.[10]

In a similar way, good teachers emphasize similarities rather than differences.

Dramatic thinking is based on similarities.[11] Behaviourists say that thinking is based on oppositions: that we think in terms of "either/or," digitally and linearly. This is to divide experience up into bits and assess each bit separately. Behaviourists examine speech separate from movement or characterization. They separate "the facts" from "what is done." But students in play or improvisation do not think like that. They see things whole, they think whole, and they act with their whole selves. As any good parent or teacher knows, children do not divide "the facts" from "the experience"—they know the facts about Columbus through (in) their dramatic actions. When they are older, should they try to learn about the workings of the internal combustion engine through theory first, they are liable to understand it less than those who open up a car's hood and get their hands messy—particularly if, while they do so, they dramatize themselves driving the car.[12]

Players think in active metaphors.[13] Metaphors in language are "two things in one." Thus, when we say "the roses of her cheeks" we are thinking of "her cheeks" in terms of "roses." But metaphoric thinking is not merely linguistic. It is also characteristic of dramatic action and all the arts. When I am acting Christopher Columbus I think I am two things alternately (although they may feel simultaneous): myself and Christopher Columbus. In drama, the actual and the fictional co-exist. And they do so IN ME: the human actor becomes a living metaphor, "a costumed player."

In one sense, we are all "costumed players" within the living process itself. We all wear "costumes": not just the obvious uniforms of soldiers, scouts and guides, "mods," "rockers," and the latest pop craze, but also those of fashion and the newest Sears catalogue—paradoxically, we all want to be similar yet different. And we all play roles: it is foolish parents who use the same role with their children as they do in the office with their boss. They are poor players. Good players learn to adapt their playing flexibly to the context in which they play.

To dramatize is to think through similarities. The spontaneous actor sees the "whole" and the "part" as a total entity—as 2-in-1. The good teacher infers such thinking when the students demonstrate the dynamics of contrasts, conflicts, and complementarities in their playing. When young people show these dynamics as "costumed players," they are both thinking and learning.

Dramatic Learning

Dramatic action IS learning. When children play and students improvise, their actions involve not only thinking but also learning. What types of learning?

First, they learn about dramatizing: the HOW—the most effective dramatic ways to do things. Playing at mothers and fathers, children learn (amongst other things) about hypothesis. "If I act my role like THIS then THAT happens. But if I change my role then something else happens." A child playing a wicked aunt does different things from when she is a good aunt. Not that children necessarily understand, explicitly, that they are learning about hypothesis. Piaget tells us this does not occur until adolescence. But in play, young children operate through hypothesis tacitly, beginning from about ten months old. Indeed, it is highly questionable if children can learn scientific hypothesis well in adolescence if they have not had lots of good experience in dramatic hypothesis.

This is very similar to what Sir Karl Popper considers to be the basis of all knowledge and learning: trial-and-error.[14] In both life and dramatic experience, we try out practical solutions to problems. If they work, we try them out again; if they do not work, we do not repeat them. As "the actual world" and "the play world" are parallel, we can transfer learnings from one to the other with ease. This is largely due to the intrinsic motivation within play: what the child learns about playing when his is "as if" Christopher Columbus becomes embedded in his personality and, thus, is also used in ordinary existence.

Second, children at play learn about content—the WHAT is being learned (e.g., Columbus, if that is the content of the lesson). By definition, play is something all children want and need to do: their motivation is so strong that, at home, they can often be so absorbed in their play that they forget to come in for meals. In a similar way, workaholics can become so absorbed in their "world of work" that they neglect their families and their own personal health. In such "dramatic worlds," we learn the inner workings of these worlds well: their "facts," too, become embedded in our personality.

Third, acting as "a costumed player" breeds "learning to learn": the ability to learn new tasks based on the previous practise on similar tasks.[15] The experiments of children's play, constantly repeated, become habits of mind and action: the trial-and-error of taking roles and discovering what actions result, teaches children how to learn in the life process itself. Fundamental to all learning is the continuous modification of our inner reality through what we experience. The result is insight: a feeling of certainty that such-and-such is the case. From the insights that emerge from dramatic play, we learn something new in "the play world" and this teaches us how to learn something new in "the actual world."

Aesthetic Learning

Fourth, spontaneous drama leads to aesthetic learning. This is a quality that drama shares with the other arts: it educates FEELING, JUDGEMENT and CHOICE.[16] Feeling is not the same as emotion. emotion is raw and direct, as when Sartre asks, "What happens when a tiger walks through the door?" Feeling, in contrast, is more discriminate and not so immediate. Our emotion when a tiger walks through the door is of a different kind and quality from the feeling we have when we see a colourful sunset.

When we are very young, there is little difference between emotion and feeling. With good play and drama experience, however, we learn to distinguish them. Then, for those who like "maps," feeling may be said to be the basis of an "aesthetic domain" with links to the cognitive and the affective. In other words, students in play and dramatization work primarily with feeling, and secondarily with cognition and emotion; they steadily progress from using emotion to using feeling; they learn to control emotion and transform it into feeling. Thus it has a cognitive value: we know something unique.

This is the foundation of aesthetic learning and it leads to learning about judgement and choice: "I like THIS picture more than THAT" (feeling); thus, "I choose THIS picture" (choice); but "if I do so, will it fit the context in which it is to be seen?" (judgement).

This is why one of the prior aesthetic learnings is to distinguish between "liking" and "appreciating": something that is known innately by preschool children.

Because spontaneous actors discover by trial-and-error which actions work and which do not, they learn how to make good choices—to choose what will happen next in the drama—in an appropriate and productive way (that is, through judgement). Students improvising make immediate choices about what they will do and/or say: they learn the result of their own choices and this leads to good judgement. This exactly parallels how we operate in actual experience.

When assessing children and students, therefore, a key aesthetic question for the parent or teacher is: do they make good judgements and choices so that the drama can continue? And, after all, what can be more important in life than learning to make good choices so that our judgements will be more effective?[17]

In addition, the aesthetic learning in play and dramatic action brings about an improvement in self-presentation.[18] As the play of very young children develops into the improvisation of school students, dramatic action becomes more social. One set of judgements they learn, as a result, is how to present themselves to others in the most effective way: so that they can be effective in social situations. Experience with school students shows that the more spontaneous play and drama experience they have, the better they are in social situations. The reverse is also true: as Sara Smilansky has shown, when young children are deprived of play they may remain intellectually and socially deprived.[19]

Conclusion

So far, no claim has been made here that dramatization improves artistic learning. While it appears obvious that good experience in dramatization will improve abilities in theatre art this, in fact, hinges upon how well aesthetic qualities are learned.

Merely mastering artistic skills, but without a solid background in educating feeling, choice and judgement, can bring the gravest dangers. This was the case in Germany in the 1930's for, as Ronald Silverman has said, "We should always remember that those who presided over the gas-chambers were lovers of Mozart!" Those in the Hitler Youth were trained in artistic skills that dissociated them from aesthetic learning. To think only in separate categories is to deny that we are whole human beings. If we break down thinking, learning and action into separate bits, it is possible we can never put Humpty Dumpty together again. Thus when Adolf Eichmann said that he was "merely obeying orders," he demonstrated that he had not received a "whole" education; he had not learned to make his own choices, to form his own judgements, or to trust genuine human feelings. Results included the pillage of Europe and the murder of millions.

Those who separate thinking, learning and action, make "maps" the means and ends of child development and education. What dramatization teaches us, above all, is that this is false. Human beings are whole: we mature whole, and we learn whole. If there is a secret to our existence, it lies in our whole living experience ("the territory") where the actual and the dramatized co-exist.

The fact that human life is whole and complex (indeed, it is often paradoxical) leads some social scientists to take short cuts. But this is of little use to concerned parents and teachers. Besides, no one said that life was easy.

Footnotes

[1] Courtney, Richard. *Play, Drama and Thought*. London: Cassell; New York: Drama Books Specialists, 3rd rev. ed., 1974.

[2] Korzybski, Alfred. *Science and Sanity*. Lakefield, Conn.: International Society for General Semantics, 4th ed., 1958.

[3] Merrell, Floyd. *Semiotic Foundations*. Bloomington, Ind.: Indiana University Press, 1982: 56-61.

[4] The "here and now" was recognized as a double reality (in life and in dramatization) as the *hic et nunc* by Amalarius, Bishop of Metz (c.780-850). To "live through" both life and spontaneous drama is a particular concept of Dorothy Heathcote. See, Johnson, Liz, and Cecily O'Neill (eds.) *Dorothy Heathcote: Collected Writings on Education and Drama*. London: Hutchinson, 1984.

[5] Ibid.

[6] Courtney, Richard. *The Dramatic Curriculum*. London, Ont.: Althouse Press, University of Western Ontario, 1980.

[7] Polanyi, Michael. *Personal Knowledge*. New York: Harper and Row, 1964.

[8] Derrida, Jacques. *Dissemination*, trans. B. Johnson. Chicago: Chicago University Press, 1981.

[9] Courtney, Richard, David Booth, John Emerson and Natalie Kuzmich. *No One Way of Being: The Practical Knowledge of Elementary Arts Teachers*. Research Report. Toronto: Ontario Ministry of Education, 1988.

[10] For the laws of the media, see, Courtney, Richard. *Re-Play: Studies of Human Drama in Education*. Toronto: Ontario Institute for Studies in Education Press, 1982: 111-12.

[11] Courtney, Richard. "Drama and Metaphor," in, Kase-Polisini, Judith (ed.) *Creative Drama in a Developmental Context*. Lanham, Md.: University Press of America, 1985: 39-64.

[12] This is to extend Dewey's "learning by doing" to "learning by dramatic doing."

[13] This is to go beyond the ancient Theatrum Mundi (the theatrical metaphor of "All the world's a stage"), held by Pythagoras, Augustus Caesar and continuing through the middle ages to Shakespeare, into the dramatic metaphor ("life is drama/drama is life") which was also held by Shakespeare late in his life ("We are such stuff/As dreams are made on").

[14] Miller, David (ed.) *Proper Selections*. Princeton: Princeton University Press, 1985.

[15] Courtney, *Re-Play*, *op. cit*: 73-74.

[16] Courtney, Richard. *Aesthetic Learning*. Research Report. Ottawa: Social Science and Humanities Research Council of Canada, 1985.

[17] Choice and judgement are basic generic skills (i.e., those learned in schools and are necessary in adult work and leisure) which also include mental flexibility, adaptability, creativity, negotiation, inter-action, etc. See, Courtney, Richard. "Drama as a Generic Skill," *Youth Theatre Journal*, 1, 1 (Summer 1986): 5-27.

[18] Goffman, Erving. *The Presentation of Self in Everyday Life*. New York: Doubleday, 1959.

[19] Smilansky, Sara. *The Effects of Sociodramatic Play on Culturally Deprived Children*. New York: Wiley, 1974.

Judith Schickedanz
More Than the ABC's:
The Early Stages of Reading and Writing
Washington, D.C.: National Association for the Education of Young Children, 1986.

Reviewed by Patricia Dickinson, Ed. D., who is a primary grade teacher with the Halton Board of Education, Burlington, Ontario.

This very readable book attempts to link children's early reading and writing experiences to later conventional schooling. Schickedanz refutes two myths that have prevented educators and parents from seeing these links:

(1) Written language is not as dependent on oral language as was once thought. Current research suggests that rather than oral language having to precede written language, they develop best simultaneously.

(2) Oral language development is not totally natural and written language development is not totally dependent on instruction. Rather, oral language benefits from appropriate environmental stimulation and written language can develop more naturally than was once thought.

These misperceptions have caused early primary teachers to ignore much of what a child has already learned about written language when they begin school. They have also prevented preschool teachers from fully capitalizing on what very young children are able to do in written, as well as oral, language development.

The book is predicated on the belief that literacy learning proceeds naturally, but only in a supportive environment. Therefore, the goal of the author is to help parents and preschool teachers "make room for literacy learning, to give it a playful, interesting, useful and joyous place in all childrens' lives, both at home and at school" (p. 8).

The book is divided into four sections: begin with books; preschoolers and storybooks; young children and writing; and organizing the environment to support literacy development. Suggestions are made for appropriate interaction with print at each stage of the infants', toddlers' and preschoolers' development along four major categories: bookhandling, picture reading, story and book comprehension, and story reading. Recommendations for organizing the environment and a list of books for each stage of development are also provided.

There is considerable evidence to suggest that literacy is highly correlated with the experience young children have with books. Through these experiences they learn: that print makes sense, that print and speech are related, that written language and oral language are different, about school type interactions, and that reading leads to enjoyment. The author suggests that predictable books are particularly useful in developing literacy. She lists five full pages of appropriate predictable books including all time favourites such as *Goodnight moon* and *Brown bear, brown bear.*

Learning how to write involves learning: to write alphabet letters, how writing and speech relate, how form and style vary with situation, to predict how readers will react to what is written. The role of the preschool teacher is to "provide a print-rich environment, to answer children's questions, and to respond with interest and enthusiasm to childrens' writing creations" (p. 95). Although it is not appropriate to establish performance standards, Schickedanz sees questions that encourage children to think about their writing efforts as useful.

The practical suggestions for organizing the language environment would be especially useful for preschool teachers wishing to expand and enrich their programs. It would also be useful for early primary teachers who may not have fully explored the literacy possibilities in existing programs.

The book finishes with two appendices: a specific guide for parents to help children learn about reading; a joint statement of concerns about present practice in pre-first grade reading instruction, with recommendations for improvement.

Frank Smith
Insult to Intelligence:
The Bureaucratic Invasion of our Classrooms
New York: Arbor House, 1986.

Reviewed by Betty Kennedy, who is a research assistant at the Child Study Centre, The University of British Columbia, Vancouver, B.C.

By accusing bureaucrats of "invading" our classrooms, Frank Smith suggests that our children are being overpowered by the enemy. It is a disturbing suggestion. Yet he makes a convincing argument that teachers and parents have submitted control over their children's educations to outside authorities "who know little of the way worthwhile learning occurs and nothing of the individuals supposed to be doing the learning". Smith, a Harvard Ph.D. who lives in Victoria, argues that local control over children's education has been progressively eroded by standardized programming and assessment until teaching has been reduced to a series of meaningless drills and demeaning tests. And these repetitive drills and tests, he insists, are an insult to children's intelligence.

With insight, Smith illustrates how the rapid growth of programmatic instruction within our classrooms results from a basic distrust of teachers to teach and of children to learn. Too many educators, he writes, have accepted the "awesome assumption that experts outside the classrooms can make better decisions about helping students learn than the teachers who can actually see and talk with the students". This fact, coupled with the growing trend towards teacher accountability through student testing, says Smith, stifles teachers' creativity and spontaneity and threatens their professionalism.

Smith posits that the fill-in-the-blank activities which characterize programmatic instruction, symbolized throughout the book as "R-bbit" and "circle the duck that faces the wrong way", serve only to trivialize learning and teach children that reading and writing are monotonous tasks. Drawing from a broad range of research, Smith shows how meaningful learning cannot be packaged because it must originate within the learner, capitalizing on the natural, varying motivations and interests inherent there. After all, he reminds us, "both children and adults learn best while doing things we find useful and interesting". As an example, Smith points to the phenomenal amount of incidental learning that takes place during the preschool years, in a seemingly effortless manner, without formalized teaching. Yet, once children begin school, he contends, they are subjected to inordinate amounts of programmatic instruction—teaching one thing at a time—where unrelated facts are isolated from meaning and consequently, learning is made more difficult.

The preponderance of "teacher-proof", pre-packaged, systemmatic instructional programs currently entrenched in our schools, Smith warns, may be only the beginning of the insidious attack on our classrooms. For the computer, he predicts, "is the ultimate weapon of instructional programmers, and, in many people's minds at least, it is a device to take the place of teachers". Used intelligently, says Smith, computers

can be productive, creative, facilitating devices; used indiscriminately, however, they can be dangerous and seductive dispensers of the "R-bbit's" nonsensical drills and tests.

Frank Smith offers some hope for an education system to which he gives a failing grade. He encourages teachers to trust their instructional instincts and to use common sense in developing lesson plans. And he issues a call-to-arms to parents to get into their children's classrooms and to collaborate with teachers and principals to make their demands heard by distant bureaucrats. The final chapter, Protecting Children and Schools, arms parents and educators with useful facts, suggestions and checklists to prepare for the formidable task of reforming the entire North American school system.

Anyone who is interested in children and schools should read *Insult to Intelligence*. Those considering an advocacy role must read it.

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Guidelines for Authors

Canadian Children is the journal of the Canadian Association for Young Children (CAYC), the only national Association specifically concerned with the well-being of children of preschool and elementary school age in Canada. The journal is published twice yearly and contains articles, book reviews and announcements of professional conferences.

Canadian Children is a multidisciplinary journal concerned with child development and early childhood education. Authors from across Canada and elsewhere are invited to submit articles and book reviews which reflect the variety and extent of both research and practice in early childhood education and child rearing.

Content: Submissions should be designed to appeal to an audience comprised of parents, professionals in the field of childhood education and child services, as well as teacher educators and researchers. The following topics are a sample of the types of articles which would be considered: innovative programs for young children, early childhood classroom practices, current research and theory in the areas of family life, parent-child relationships, child rearing, child growth and development, and early childhood teacher education and training. The Editor is very interested in receiving manuscripts which focus particularly on early childhood programs in Canada, national or provincial issues concerning child care and education, or the history of child rearing and childhood education in Canada.

Most issues are multi-theme in nature and the Editor will attempt to balance articles that are research related with articles of a practical nature relating to programming, curriculum, classroom practice or child rearing.

Form, Length and Style: Articles may be of varying length, written in a readable style. Style should be consistent with an acceptable professional manual such as the *Publication Manual (3rd edition) of the American Psychological Association*. Three (3) typewritten double spaced copies on 21.5 × 28 cm (standard 8½" × 11") paper should be mailed directly to the Editor at the address listed below. If appropriate, authors should send accompanying black and white glossy print photographs, tables, figures or illustrations with complete captions, each on separate pages. Authors are to obtain releases for use of photographs prior to mailing. Authors' names should appear only on the covering title pages for the purpose of review. Additionally the introductory letter should include a brief biographical sketch including full name of author(s), title, affiliation with university, college, school or program, and relevant personal or academic information, i.e. persons assisting author, grant support, funding agency. It is expected that authors will not submit articles to more than one publisher at a time.

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Please send all correspondence and completed manuscripts for publication consideration directly to: Dr. Glen Dixon, Editor, Canadian Children, Child Study Centre, The University of British Columbia, 4055 Blenheim Street, Vancouver, B.C., Canada, V6L 2Z1.

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L'Association Canadienne Pour Les Jeunes Enfants

Qu'est-ce que l'A.C.J.E.?

L'Association canadienne pour les jeunes enfants est née du Council for Childhood Education. Elle a reçu ses lettres patentes fédérales en 1974. C'est l'unique association nationale spécifiquement vouée au bien-être des préscholaires et des préadolescents. Ses membres viennent du Canada, des États-Unis et d'autres pays: enseignants, administrateurs, parents, étudiants et autres personnes appartenant à diverses disciplines.

Buts de l'A.C.J.E.

1. Travailler à l'épanouissement et au bien-être de l'enfance.
2. Encourager les conditions et les méthodes et les programmes relatifs aux besoins de l'enfance.
3. Encourager un perfectionnement professionel contenu dans le domaine de la connaissance du développement de l'enfant.
4. Encourager une collaboration active entre les groupes intéressés à l'enfance et au développement de l'enfant.
5. Disséminer l'information relative au développement de l'enfant.
6. Promouvoir la coordination entre tous les organismes Canadiens intéressés au bien-être de l'enfance.

Mise en oeuvre des buts l'A.C.J.E.

1. *L'assemblée générale*
   Elle constitue le grand événement de l'année. On y entend des communications par des autorités internationales dans la domaine de l'enfance et on procède à des atelies et à des discussions, comme à des démonstrations, des visites d'école et d'autres activités susceptibles d'intérêt.
2. *Les événements provinciaux et locaux*
   Les membres des organisations aux niveaux provincial et local, sont encouragés à mettre sur pied des événements qui se rapportent aux questions et préoccupations relatives aux jeunes enfants. Ces événements peuvent revêtir la forme de conferences, séminaires ou congrés local.
3. *Le journal*
   Une publication multi-disciplinaire de premier ordre, le journal paraît deux fois par an. Ce journal présente des articles traitant de questions d'éducation et de formation des jeunes enfants écrits par des experts bien connus sur le plan national et international.
4. *Le bulletin*
   Publié à intervalles réguliers, le bulletin traite de questions d'intérêt national et international.

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