

## Research paper 1 - Benoit Dubuc

### La Dignité humaine: celle de l'enfant - Human Dignity : the Child

1948 was a good year for humanity: the Universal Declaration of Human Rights was proclaimed in Paris at Palais de Chaillot. The significance of its passage is further illuminated by the context of the times - a second cruel and devastating world war had just ended. It is safe to assume that people were brought to their senses; leading them to do something about the useless destruction of our own kind. The Declaration is a milestone in the history of civilization. Not only did it proclaim the rights of a country and/or a nation but did so for all Human Beings.

The Declaration begins with the affirmation of human dignity as it says: "Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world,..." This confirms that dignity is inherent; it is the essential makeup of the members of the human family. Furthermore, Article 1 reaffirms that: "All human beings are born free and equal in dignity and rights." It is further noteworthy that Article 26 of this same Declaration affirms education as a basic human right and that its aim shall be "...directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms." *It is rather powerful that this Declaration underscores the fact that without recognition of human dignity, the ideas of freedom, justice and peace rest on un-solid grounds. Might it then suggest that without dignity, humankind will constantly be on the brink of destruction? But what is Dignity?*

The etymology of the term Dignity brings us back to a Latin origin: *dignitas* meaning "worthy, decent". Dictionaries define 'dignity' generally as a "state or quality of being worthy of Honour" (Collins); or "the quality or state of being worthy, honored, or esteemed" (Webster), and further, "the quality or state of being honored or esteemed: degree of esteem" (Webster). All definitions underscore the element of recognition.

Great philosophers have delved into what human dignity is all about. Among them was the philosopher Thomas De Koninck, who wrote a complete book entitled: "La Dignité Humaine", where he discusses aspects of human dignity. At the very beginning of his work,

he powerfully establishes that human dignity is an absolute; and that each and every human being possesses this: « *Tout être humain, quel qu'il soit, possède une dignité propre, inaliénable, au sens non équivoque que Kant a donné à ce terme: ce qui au-dessus de tout prix et n'admet nul équivalent, n'ayant pas une valeur relative, mais une valeur absolue.* » (DK, p. 1). (Any human being, whoever he is, possesses his own dignity, inalienable, in the non-equivocal sense that Kant gave to the term: that which is above any price and does not admit any equivalent, not having relative value, but an absolute value).

De Koninck cites Jean-François Lyotard (???) in the reference to the beautifully paradoxical nature of the humanity of the child: "*Dénué de parole incapable de la station droite, hésitant sur les objets de son intérêt, inapte au calcul de ses bénéfices, insensible à la commune raison, l'enfant est éminemment l'humain parce que sa détresse annonce et promet les possibles. Son regard initial sur l'humanité, qui en fait l'otage de la communauté adulte, est aussi ce qui manifeste à cette dernière le manque d'humanité dont elle souffre, et ce qui l'appelle à devenir plus humaine.*" (Without speech, incapable of standing erect, hesitating on the objects of interest, incapable to protect his own interest, insensitive to common reason, the child is eminently human because his distress announces and promises possibilities. Her initial outlook on humanity, which makes her hostage of the adult community, is also what manifests to it that it suffers from its own inhumanity, indeed inviting it to rise to more humanity.)

Further, De Koninck (p. 35) emphasizes that recognition is inherently **essential** to human dignity. He says : « *Or il est évident que ce qui donne tout son sens, sa force à ce désir n'est autre que son origine: la reconnaissance implicite de la dignité de notre commune humanité.* » (*Indeed it is evident that what gives its full meaning and strength to this aspiration is nothing else but its own origin: the implicit recognition of the dignity of our common humanity.*) Humans as social beings aspire to having one's own dignity recognized. Inspired by the work of Taylor, De Koninck (p. 36) says: « *La conception qu'a chacun de soi-même, son identité en ce sens, apparaît au moins partiellement constituée par la reconnaissance qu'il reçoit des autres.* » (One's self identity is at least partially related to recognition he receives from others). This dimension of dignity points to the experience one may have of it; referring to both the experience of dignity of the self and dignity as it is recognized by others.

Psychologists have dealt with this human distinction, particularly psychologists of the humanistic school. One of the more renowned humanists is Abraham Maslow (1954). After studying personalities remarkable for their achievement and therefore recognized as dignified in the eyes of the many (Einstein and Eleanor Roosevelt among others), Maslow indicated that as human beings, their achievements were the result of an inner motivation: a need for self-actualization. He coined the phrase: "What a man can be, he must be." In more ancient traditions, isn't this what is referred to as "accomplishing one's own destiny?" The message is the same; the difference lies in the methodology used. Maslow employed more scientific methods in observing and extracting this human trait in action. This need for self-actualization is what makes us deeply human, thus is also at the root of our dignity. But the question to be asked is this: is this limited only to great and outstanding adults who provided humanity with the best achievement it can produce? *Is this reserved only for the famous? If dignity is a human absolute and self-actualization is its avenue, can ordinary human beings achieve such and therefore preserve their human dignity through their ordinary toils?*

Another outstanding humanistic psychologist, one that a survey pointed to as the second greatest psychologist of the 20th century after Freud, is Carl Rogers. He enlarged the base root of human dignity as it is experienced at an individual level. Having worked as a psychotherapist initially with children and then with adults, he deftly observed that the root of therapy for any individual has always lain within the individual. Thus, there was a necessity to inherently trust the individual and her capacity for self healing; her inherent dignity.

Maslow observed the same in the field of education (freedom to learn) where he indicates, like Maria Montessori and the long line of those who told us in the words of William Wordsworth (1988): "The child is father of the man" (Tolstoi, Froebel, Freinet, Dewey,...), that the dignity of human beings emanates and is communicated through the "Fully Functioning Person". The Fully Functioning Person is one who is fully self-actualized in his or her engagement with life, at whatever level that may be. Self-actualization is strictly not reserved for extraordinary individuals but to whoever lives one's own life fully. Do we then recognize it only from individuals coming out of the distress of psychological difficulties? Or do we see it also when is one actually educating oneself? Surely, if one is just

the least bit familiar with Maria and Mario Montessori's works, we can recall the numerous examples about how dignity is observed and recognized and how the obstacles placed on the path of infants, children, adolescents and young adults hamper this path to their personal dignity.

Another psychologist of note and interesting to refer to is Mihaly Csikszentmihalyi; described by an ex-president of the American Psychological Association ([http://fr.wikipedia.org/wiki/Mihaly\\_Csikszentmihalyi](http://fr.wikipedia.org/wiki/Mihaly_Csikszentmihalyi)), as "*le plus grand chercheur au monde sur la psychologie positive.*" (The greatest research scientist in the world on positive psychology). He started his work somewhat à la Maslow. He interviewed recognized creators (so that there would not be any doubt about the value of their achievements, perhaps) in different fields about their inner experience while in the process of creating. He observed and described that experience as being in a state of "Flow", a state in which the individual is the most happy, most human, while being totally absorbed and concentrated in an activity. But he did not leave it at that because he turned his scientific gaze towards the ordinary person and further observed that we all, as human beings, are capable of experiencing such a state. He described this state as an "autotelic" state (Etymology: *Gr autotelēs*, complete in itself).

More than a century ago, this same autotelic state or this experience of flow was observed, documented and even triggered in children by Maria Montessori. While she used a different reference name to it - Normalization, it can be gleaned that this phenomenon is not much different from Csikszentmihalyi's flow experience. In Portland, Oregon, in 20??, NAMTA, an organization dedicated to Montessori education, offered a workshop directed by Mihaly Csikszentmihalyi, who then bridged the intellectual space between the adult "flow" and the developing child's "normalization". This experience is deeply human. It defines the exclusivity of our humanity, thus defining our dignity, the dignity of all. With the autotelic activity, with the experience of flow-normalization, life reaches another level. As Csikszentmihalyi 2004, p. 110) says: « *Avec l'expérience autotélique, (l'expérience optimale) la vie passe à un autre niveau. L'aliénation fait place à l'engagement, l'enchantement remplace l'ennui; le sentiment de résignation est chassé par le sentiment de contrôle. L'énergie psychique n'est pas orientée vers la poursuite de récompenses externes mais est utilisée de façon à favoriser l'épanouissement de soi.* » (With the autotelic experience, optimal

experience, life reaches another level. Alienation is replaced by engagement, pleasure replaced boredom; any feeling of resignation is chased away by a feeling of control. Psychic energy is not aimed at external rewards but is used in order to achieve self actualization). Dignity then, is experienced through the flow-normalization process as well as when one comes out of it, the way Maria Montessori described countless of times in her observations of children.

Csikszentmihalyi (2006) defines clearly what the interviewed adults were experiencing through the "flow" process. He defines 9 aspects of the process:

1. At each step of the process, the objective is clear.
2. Each action is followed by immediate feedback.
3. The difficulties of the endeavor are balanced with the capacities to succeed at it.
4. Experience and action are intimately linked.
5. Any distractions are excluded from awareness.
6. Fear of failure disappears.
7. Self image has less importance.
8. Awareness of time is modified.
9. The activity becomes autotelic (generates its own pleasure)

Doesn't this make us recall what Maria Montessori has described of the young child deeply involved with the cylinder blocks; repeating the activity too many times to count; oblivious to the many deliberate attempts to distract her but to no avail? The child coming out of the experience is refreshed and happy. This is just to use one example. Moreover, Maria Montessori mentions that Tolstoi observed the same experience with children. But while others have set out to describe this process, Maria Montessori's genius as a scientist lays in the discovery of the necessary and sufficient conditions to produce this flow experience in children. This was evident in the San Lorenzo experience where she described the child as being normal and coined the experience as the process of "normalization". [This experience has clearly established that if these children, who were culturally deprived, were able to achieve this state, the process of normalization then is replicable in all human beings.](#)

Maria Montessori's whole life work has been devoted to the defense of the child's dignity and in education; in her pursuit of the optimal and necessary conditions for dignity to be experienced by the child and recognized by the helping adult(s). She defined education as this help to the life of the child in order she be able to construct the adult she will be. On numerous times, she indicated how, quite differently for the adult, the engagement of the child that results in normalization is strictly self developmental. The sole finality of being a child is to develop; thus there is the necessity for the adult to assist, to prepare an environment (physical and eventually intellectual), and to provide the conditions for the child's entry into the adult world. This construction of his person is natural for the child. His or her nature is "hard wired" to do so. When the help provides the necessary conditions, normalization occurs and optimal development ensues. When help or intervention is inappropriate, it becomes an obstacle to normalization. In these instances help thus becomes an obstacle to development; and the dignity of the child is shunned. Deviations follows and the fully functioning person is no more.

There is no other path to the child's dignity but through normalization, for it is the only one leading the child to his finality; to his full development. It does not occur in any other way, just like there are no other paths for adults towards dignity but through conducts and/or action-conducts that are self-actualizing. This involves a person who is fully functioning. It may seem that only highly creative adults have access to this dignifying experience. Maria Montessori's definition of the mature personality as characteristically being free; as having conquered all the dependencies which were obstacles on the way of development; indicates to us that this experience is not reserved only for the established creators. Researches have indicated so as well and Csikszentmihalyi synthesized fully in chapter 10 of his book "Flow: the psychology of the optimal experience" (Csikszentmihalyi: 2004, p.261-291) what the autotelic personality is. Essentially, it is a personality in full possession of itself. Csikszentmihalyi indicates that "flow" is a human experience lived by all, young and adult alike. In a similar vein, Maria Montessori has always presented how the process of "normalization" was experienced early on, from the beginning up of the child's life all through adulthood. The following table is presented with Csikszentmihalyi's description of the conditions of the Flow experience side by side with equivalent references from Maria Montessori.

CORRESPONDENCE BETWEEN FLOW & NORMALIZATION

Conditions of the Flow experience	Description of Normalization
<i>Goals are clear - One knows at every moment what one wants to do</i>	... "Application to work". An interesting piece of work, freely chosen; directed by inner motives.
<i>Feedback is immediate - One knows at very moment how well one is doing</i>	Nature of activities and interaction with the environment have built-in motives for perfection giving one immediate feedback as to how one is doing i.e. breaking a glass.
<i>Skills match challenges - The opportunities for action in the environment are in balance with the person's ability to act</i>	Activities are developmental, catering to the child's needs and personality, therefore within the child's range of capabilities.
<i>Concentration is deep - Attention is focused on the task at hand.</i>	For example, children have an inner need to learn. If they receive adequate help, they respond to this need to learn and respond to this need with an astounding intensity of involvement and concentration on a given task. **
<i>Problems are forgotten - Irrelevant stimuli are excluded from consciousness.</i>	Deep concentration is evidenced by child's oblivion to surrounding stimuli.
<i>Control is possible - In principle, success is in one's hands.</i>	... power to act from real choices, guided by an inner life force, development of the will ensues through the harmonious balance of body and mind
<i>Self-consciousness disappears - One has a sense of transcending the limits of one's ego.</i>	... sublimation of the possessive instinct, ...
<i>The sense of time is altered - Usually it seems to pass much faster.</i>	Child engages in the activity continuously; oblivious to time
<i>The experience becomes autotelic - It is worth having for its own sake.</i>	They derive satisfaction from their own activity, which is highly meaningful to them.** working for work's sake; process-oriented.
From: Csikszentmihalyi, M. Flow & Education, <u>NAMTA Journal</u> , vol. 22, no 2, Spring 1997, p.8	*Standing, E.M. <u>Maria Montessori : her life and work</u> , 1957/1984, pp. 175-178 **Montessori, M. Jr.; <u>Education for Human</u>

Mario Montessori Jr. eloquently expresses in his book Education for Human development (1976, p. 67): "If human dignity and joy in living are not to be smothered by the Industrial Age, the true value of work as an aspect of man's creativity and cosmic task must be restored. This is only possible if education takes into consideration the earliest roots of work, the activities related to the inner construction of the personality, and not merely directed toward an external goal." Again, we see here an indication that dignity ensues from the deeper levels of the human condition and that they must be not only protected in childhood in order to bloom into adulthood. They must be cultivated in the context of the child's effort to construct her personality. All these are done through meaningful work that is freely chosen.

Maria Montessori has indicated that the construction of the personality travels through planes of development that are structurally different. If educators want to help the life of the child, they have to adapt to the peculiarities of this life as it manifests on the different planes. When the child leaves the first plane, she has mastered, movement, language and she has a budding social personality. What has nature provided for her upon entrance to the second plane? Dignity can only be experienced if this child is able to achieve what nature has in store for her in terms of development. And this was certainly programmed into her makeup long time ago, long before civilization even existed.

We have established that dignity - which defines us at our best and what we can recognize in others - is experienced at the individual level as self-actualization from a fully functioning personality. One has indeed experienced such when one has engaged in autotelic activities. Such activities are also within the domain of childhood and adolescence, not only during adulthood. *These activities are highly developmental and touch the deeper, mostly unconscious level; that where the development of the personality is taking place. This development takes place along different planes and has maturity as its finality. This is what Maria and Mario Montessori's whole life works have been devoted to - to uncover life*

requirements on each planes. What secret does the child hold for us to discover? Let's look at what nature has in store for us about the child on the second plane.

Let's imagine we are in the times when human beings were hunters-gatherers. Human beings lived this way and adapted to those conditions for thousands of years. It is only during the last 10, 000 years that they were able to settle in one place, cultivating the land and learning to domesticate animals. They have been on the move all through those thousands of years and as Bronowski (1973: 37-38) clearly showed in his outstanding work: The Ascent of Man, their conditions did not allow much time for contemplation, and other activities of that nature. The necessities of survival were ever present, therefore, were more pressing. He describes the nomad group: the Bakhtiari, a nomad tribe of Persia. Every day, because of transhuman necessities, the group had to move to yet another grazing area. Everything had to be packed and carried away. But what happened to their children? The little ones are carried but as soon as they were capable, they participated in the group effort to look after the flock of animals. The girl learned to do as the women did, just like the boys will do like the men. For the women, they were to produce men-children, otherwise, too many she-children posed a threat for disaster. As Bronowski (1973: p.38) indicates. "Apart from that, their duties lies in preparing food and clothes", he adds. When the food is prepared, all women and girls had to wait for the men to have eaten before serving themselves. "The only ambition of the son is to be like the father" he tells us. So the childhood years will be used to prepare for the achievement of this goal. In the Spring comes a heroic day when the whole tribe had to cross the Basuft river, swollen with three months of melting snow. That day, is the day that the young became men, because the survival of the herd and the family depended on their strength. They have had to be prepared for that day. All of their accumulated knowledge gathered from the elders and about the surrounding conditions of nature will be tested. It has been this way for thousands of years and most certainly has determined the biological make up of human beings; Bronowski (1973, p. 36) indicates.

In effect, the pursuit of knowledge about nature; the desire to live in a group and follow common rules in order to survive are the basic aim of these individuals. We are no different from them, if we consider that all these thousands of years have hardwired us to this way. In other words, children have not been hardwired to sit behind desks for half the

day in order to learn and grow into maturity as adults. Being in relationship with nature, with our fellow humans; testing our capacities while developing them in contact with real and meaningful situations; listening to the stories about our predecessors in order to face the next day with their knowledge and wisdom; achieving the rite of passage into adulthood with real life tests that reaches into the depths of all our strength and experiencing the joy of success and entering the dignity of adulthood - all of these cannot be but the fundamental biological make up of our children. For thousands of years this ritual **and natural rhythm of life** has been repeated. Is this what Maria and Mario Montessori have discovered in their constant and persistent observation of the child, or as David Kahn (1997; p. 123) observes, "the quest for normality - for the truth of human nature ..." Let's look at their efforts of uncovering true human nature pertaining to the child on the second plane.

"I would give anything to be able, one night, to see the stars" an eight year old child commented to Maria Montessori (1949/2004, p. 19). That child has heard of stars but never had the chance to actually observe them. It also indicates how the real world exercises such a fascination for the child at that age of reason. Montessori (1949/2-4, p. 10) said:

"We must sympathize with the little boy or girl who has changed, as much in his physical aspect (manner of dress, of combing his hair, et cetera) as in his inner person. He has become a strong being, a being who is entering into a new world, the world of the abstract. It is a rich world in which the acts accomplished by men will interest him more than the things. He has reached a new level, he starts to express judgments. This is new for him. Before, he was interested in things (changing the water for flowers, caring for the little fish, et cetera). Now he is interested mainly in the how and why. All that used to attract him sensorially now interests him from a different point of view. He is looking for what needs to be done. That is, he is beginning to become aware of the problem of cause and effect.

In this excerpt, it is clear that the child of the second plane as observed by Maria Montessori is endowed with a stronger body; interested in society and its functioning, deeply involved with reasoning about cause and effect and has the ability to express judgment. He shows "... his desire to escape from the house, ... as she mentions (Montessori, M. 1949/2004, p. 12). There is so much lure to the outdoors for this child. "When the child

goes out, it is the world itself that offers itself to him " (Montessori, M. 1949/2004, p. 18). And again, "There is no description, no image in any book that is capable of replacing the sight of real trees, and all the life to be found around them, in a real forest." (Montessori, M. ; 1949/2004, p. 19). So there is a real need for the child on the second plane to actually investigate nature de visu.

In her book: "To educate the Human potential", Maria Montessori (1948/2003: p. 3), says that she "...recognizes that nature has made this a period for the acquisition of culture...". Now consciousness is thrown outward in a special direction and there is a special demand on the part of the child to know the reasons of things. This is a period when the seeds of culture; of everything can be sown, when interest in anything can be motivated. The mind and the intelligence are eager to learn. It is also interesting to note how again and again she (Montessori, M. 1948/2003, p. 6) indicates how "all things are part of the universe, and are connected with each other to form one whole unity." We can offer so much more to the eager mind of the child today than was possible for the child living in hunter-gatherer's times.

There is an aspect quite distinct for the child at this age too and it is related to her concerns about the moral field. "The second period child is living two parallel existences, his home existence and his existence in society" says Maria Montessori (1948/2004, p. 15), This child, although still attached to her family, looks out to explore the larger world by herself, including the surrounding society. Thus the necessity to be able to distinguish what is good and evil in one's own conscience is present. She wants to understand by and for herself, and not merely integrate what is being said. She wants to exercise her own judgment. As she says: "An inner change has taken place, but nature is quite logical in arousing now in the child not only a hunger for knowledge and understanding, but a claim to mental independence, a desire to distinguish good from evil by his own powers, and to resent limitation by arbitrary authority. In the field of morality, the child now stands in need of his own inner light." (Montessori, M. 1948/2003, p. 4). The construction of a personal conscience is at stake here.

It is necessary here to underline an observable fact: the social factor. The child on this plane is in "need to associate himself with others, not merely for the sake of company, but in some sort of organized activity." Montessori, M, 1948/2003, p. 4). In his group, each

has a different status with different roles, and a leader is chosen (and obeyed). Thus, a strong group may be formed. This is a natural tendency documented very widely in psychology. One may also acknowledge expression of this phenomenon in literature in such masterpieces as: Tom Sawyer by Mark Twain, Lords of the Flies, by William Golding or lately, Harry Potter by J.K. Rowling, or even the French "Signe de Piste" series of my youth.

Let's complete this presentation of the child's needs with perhaps the most important one, the ever reasoning mind, the "hungry intelligence". Maria Montessori observes this (1948/2003, p. 4) about the child on this plane, as well as the eagerness to explore vast fields of knowledge. The child is attracted, motivated to extract relationships from phenomena - any one - to apply one's mind to decipher the intricacies of the phenomena of the universe - be it the natural world, the social world or the spiritual world. Nothing will escape his willingness to go to the rational bottom of things.

These aspects of the life of the child on the second plane, from the age of 6 to 12, constitute the basis from which her dignity may be achieved. This is what her life is profoundly all about, her true human nature. Our most important responsibility is to help this life express itself in such a way that development will occur and the intelligent, respectful, knowledgeable and joyful personality will emerge, possessing moral integrity. Maria Montessori says "... the amount of light a child has acquired in the moral field, and the lofty ideals he has formed, will be used for purposes of social organization at a later stage." Only if our help as educators touches these inner and basic aspects of what life is, only if we help life in what it is trying to accomplish for this child on the second plane, will her dignity rise. This is the only way to development. How is this achieved? How then do we give help?

### **Cosmic Education**

Maria Montessori, with the help of her son, Mario, spent many years in developing Cosmic Education into an efficient approach which would help the child of the second plane achieve normality. It had to touch every aspect of the child's developmental needs in order for that child to mature optimally. The child being viewed from a different perspective, the approach had to be different as well. Historically, the approach was an extension of the discoveries made with the child from 3 to 6 years old. It was presented in "The advanced Montessori method" in 1916. But this was not sufficient since, in 1936, Maria Montessori

published her ideas about the planes of development: "Les étapes de l'éducation" (1936/2007). This is also the same year when she proffered the concept of "Cosmic Education" (AMI communication), the overarching principle of education for the child on the second plane. Finally, while interned at Kodaikanal, India, as an Italian subject during world war II, (NAMTA), together with her son Mario, she experimented thoroughly with all aspects of Cosmic education, in the same fashion that she was able to do so in San Lorenzo for the younger child of the Casa (3-6).

The question is how to help every fiber of the 6 to 12 child in achieving what nature has designed for her to accomplish, in order for development to be fully aided. If we are to actually aid the child's development through education, how do adults provide a context of normalization - if this will be our criteria of optimal child development? In order to help nature, we must be aware of the fundamental developmental needs of the child at that plane - needs that we just presented. Then we will have the privilege of observing the child achieving levels of development the instant she comes to us with joy, pride and with dignity and in return she will be recognized as dignified, as having accomplished the best her human nature given her access to: freedom and independence.

Before Maria Montessori could actually concretize Cosmic Education, she was able to develop with and from the children different activities for which she coined terms attached with the prefix "psyco..."; such as psychoarithmetic, psychogeometry, psychogrammar, even psychomusic. Specialists of those times were considering such topics too difficult for the children to grasp but Montessori observed that these were topics that the child was keenly interested in. She has demonstrated such fundamental truth - quite contrary to what the specialists said - by adapting the tenets of these academic domains with the psychology of the child on that plane. *It is not therefore a matter of frivolity that she affixed "psycho" to the names of the disciplines. A very important consideration was taken - the nature of the child on this plane.* She (Montessori, M, 1948/2004, p. 16) described an illustrative example: "A young child in a school in the Netherlands knew how to do the square of the binomial. This would compare to the knowledge of children much older. But one day, having asked his teacher whether he could collect spent matches in the forest with his playmates, he did not behave differently from the other children. Like them, he was only occupied with knowing who would find the most, without thinking about the

explanations being given by his teacher elsewhere. This concern gave his age away." Although we have to deal with a seemingly "ordinary" child, that child is capable of higher level of intellectual achievement, if it is made accessible through activities designed with the psychology of the child of that age in mind. Montessori is not into training "single savant" but into making any piece of knowledge as accessible as the interest of the child is able to grapple. These "psycho" topics are most interesting because they are all very "academic". Thus the fact that amazingly, children delved into them very much quite independently indicated to Maria and Mario Montessori what the possibilities were. Sometimes they are very advanced indeed.

### **Cosmic Education - Origins (?)**

In ancient Greece, during the 5th century BCE, the pre-Socratic thinkers brought out the sublime idea that everything that exists is not anymore conceived as the result of conflicting forces between gods under the royal power of Zeus, but being an order in itself. In fact, the word that refers to the world: *kosmos* - used all through the 5th century with this meaning - is the same as the expression of this idea of order (Balaudé, J.-F.; 2008, p.40). Thus the concept of an intrinsic harmonious order ruling in the universe was born. When Maria Montessori (2007, p. 53) introduced her concept of Cosmic Education as it applies to the education of the child on the second plane, she quoted at the outset, her uncle, the renown Antonio Stoppani, who said in particular:

"By cosmic (or telluric) economy I mean that system of coordinated forces - that is to say, that complexity of laws, that chain of causes and effects which are the foundations of the world at the moment in which we live, and on account of which that which is called the "Order of the Universe" is maintained."

And also:

"We study nature not only in the phenomena which it presents but in the coordination between them, under the compulsion of supreme laws from which proceeds the universal order."

She went on with six lectures on the most original topic of Cosmic Education. Her creative genius then came into play. Relentlessly and methodically she worked on developing a suitable environment; "suitable" taken here to mean that it is adapted to the child's

developmental need and conducive to normality. This is the environment conceived to aid the constructive, self-elevating dimension of human life; allowing the child to find her place in the order of things. She said: "The entire organism of the child, from his physiological, vegetative part to his motor activity, ought to find in school 'the best conditions for development'". Mario Montessori (1976, p. 7) added: "To the young child we give guides to the world and the possibility to explore it through his own free activity; to the older child we must give not the world, but the cosmos and a clear vision of how the cosmic energies act in the creation and maintenance of our globe."

Two dimensions of Cosmic Education may be considered, the second resulting from and coordinated with the first. Education - being the help we may provide to the life of the child - the first dimension provides the aspects of the universe and their intrinsic laws. Each aspect of the universe achieves what it exists for. On another dimension, in actualizing its intrinsic nature, each is of service to the rest of the universe. So then, all factors of culture may be presented to the elementary child, "not in a syllabus to be imposed on him, or with exactitude of detail, but in the broadcasting of the maximum number of seeds of interest" (Montessori, M; 2003, p. 3).

What is out there? What does the Cosmos consist of? On one hand, there are the rocks, the water, the rays of the sun, light, gravitation, seasons, states of matter, ... All of these constitute the order in the universe. Furthermore, there are the laws at play through forces at work- for example, that of the water in its different forms and of air with its influence on climate. There are tectonic forces that are also at work; which explains how the earth is formed and how it evolves. There are different resources present that are used by life in its many forms and particularly by human beings in their economic endeavors. All these forces explain how land and water were shaped.

Then there is life that "dressed up" the earth. When a glacier disappeared, there seemed to be no life apparent that remained. But this was so only for a short time. Then life came and started to impose its presence. Life always works for the earth There is that important something which revolves around life: its multiplicity, its functions to support the earth's travails. All of life follows its own laws: to eat incessantly, to grow in order to achieve its final form and to reproduce to maintain its presence. All forms of life have

evolved to populate the entire Earth. Plants, trees and flowers are everywhere but the most desolate places. Animals are roaming the habitats created by these plants and thus contribute to the equilibrium of nature.

Human beings are part of life and bring their own contribution to creation: their physiology of the mammalian form. More extraordinarily, although they do not have strong instincts to guide their survival, they have a most powerful mind that leads them to impose their supremacy over the land and seas. It is with their ability to reason, invent, communicate and love that they became the master of all creation. Human beings came relatively late in this dominion of nature. The child participates in the human adventure by becoming, in turn, the adult. This succession must be enlightened with a sense of how a child's presence in this grand scheme of life; his participation in this adventure contributes to the greater good.

Historically, human beings slowly developed tools and techniques and communicated them to their fellow men and women as well as to their children. This communicated knowledge helped to achieve better ways and means of basic survival, until they discovered ways to control agriculture. Then the daily tasks of survival could be shared and specialization became possible. At a certain point, mastery of the survival tasks became extensive enough that human beings had the luxury of entertaining and exploring other dimensions of their spirit. Thus, art, religion and culture including the written word and mathematics were invented. Because Cosmic Education presents these ideas to the child, it thus offers an environment that inspires the spirit; stimulates the intellect; helps construct a conscience; allows for interaction with society and provides for the security of one's psychological state.

How is the child invited to delve into this psychological ambiance? In her quest to develop her social personality, the child, if allowed the liberty and given an integrated outlook on the order of what exists, will invest her energy in understanding the universe that surrounds her. As Montessori (2007, p. 55) explained:

"If a system can be presented clearly and simply, it may become, as it were, a central point, incandescent, burning with interest. From this centre of the glow proceed on all sides rays which may reach all the different subjects of study, in

all the branches of culture; so that it becomes the bond which holds together all the particular matters in a bond of logic."

Immersed in this glowing centre, the child may explore all that there is with a powerful and creative imagination; understand the laws governing phenomena with a reasoning mind ; learn to live constructively and responsibly with her immediate environment - her friends and then on to the larger society to which she belongs. As Montessori (2003, p. 6) once said: "If the idea of the universe be presented to the child in the right way, it will do more for him than just arouse his interest, for it will create in him admiration and wonder, a feeling loftier than any interest and more satisfying." What is the right way? It is one that strikes the imagination and entices the child to spontaneously pursue his interest. "What is it that strikes the imagination? -It is above all, grandeur and, next mystery. The imagination is then capable to reconstruct the whole when it knows the real detail. Montessori, M. 1948/2004, P. 20)

Cosmic education is not presented as a curriculum but as elements of interest to the child. As Stephenson (1986, p. 13) indicated, "... the child cannot follow his interests until he has interests to follow." Contrary to the individual nature of the endeavors in the first plane, the older child, with his developing his social individuality enjoys exploring and working with his friends. He expresses himself within the group he belongs to; he likes to worship his heroes and share his admiration for them with classmates and playmates. He admires those heroes because they represent human qualities he looks up to; those he strives to achieve. He rushes to school to join his friends and leaves behind the family, each day expanding thereof the circle of human society he belongs to.

#### Cosmic task and the importance of gratitude

Maria Montessori went to great lengths to indicate how any and all elements of nature not only obey the individual function that their laws command, but that, in doing so, are indirectly and/or unconsciously of service to the greater good. For example, gravity may keep things on the ground, but it provides for water going from the highlands to the sea (direct effect of gravity) to carve, carry and deposit the land (indirect effect). Water, being in liquid form or solid form, sculpts the land - another indirect effect. In many instances, Maria Montessori presented how phenomena were interrelated and were

supported by one another; with their culmination in the human person's accomplishment of his destiny. She identified the concept of "cosmic task" to such collateral generosity in all of the parts of nature. *We have been enlightened with regards to the interdependencies of all things and thus appreciate our roles in this cycle of life.* How important and relevant this idea is today with the global threat we are imposing on life which supports the Earth.

### Cosmic Education in the Class

Cosmic education is made up of a series of aspects intermingled together in such a way as to make an equation (Pottish-Lewis, 1999); each aspect must be presented in the operating class for its effect to take place in order for the child to express and achieve his normality.

*Great stories.* In her book To Educate the Human Potential, Maria Montessori illuminated the evolution of the universe and of civilizations while indicating the cosmic task of one aspect or another. It also conveys how she told these great dramatic stories to children. Thus we were invited to understand the method - that is to present lofty story to children about real things and phenomena. In the class, especially with the younger elementary child, we tell stories; and of those, five fables are essential: "God with no hands" tells the story of the origin of the universe; the "Story of Life" presents how life appeared when the Earth was ready for it; the "Story of the Coming of Human Beings" overviews how human beings evolved from naked, helpless creatures with a mental ability unsurpassed on Earth to become masters of the world; the "Story of our alphabet" and the "Story of our numerals" show to the child the greatness of human beings inventing means to lasting communication and abstract thinking.

These stories orient the child for his endeavor. It is somewhat a springboard for further discoveries because it sets the tone; a vast and penetrating ambiance both inspiring and factual. Montessori's ability to convey the grandiose importance of each phenomena of the world has its counterpart in the fact that these stories that she tells are based on and refer to reality and its laws. In other words:

"To interest the children in the universe, we must not begin by giving them elementary facts about it, to make them merely understand its mechanism, but start with far loftier notions of a philosophical nature, put in an

acceptable manner suited to the child's psychology. Here we may call to our aid some myths or fairy-tales, but they must be such as symbolize truths of nature, not the wholly fantastic." (Montessori, M. 2003, p. 19)

*Key lessons.* While the five Great lessons set the stage; the key lessons are the characters of the play presented on the stage. They present the details the children will explore. For example: what the earth is composed of; how the water and the air works; how human beings exchanged with each other; how all is interrelated. As for life: the kingdoms of plants and of animals including human physiology are examined with their specific needs and functions. Human beings are studied as to their evolution leading to the construction of societies and civilizations. The structure of oral and written language, becoming more and more complex, is presented and leads to its creative and precise use. Likewise, the structure of more and more abstract mathematics, from simple operation to algebra, is examined and built upon to indicate how they are tools of human inventions and technology. All of this is given in order to support the child's quest.

*Experiments.* Great lessons and key lessons are often introduced and illustrated with experiments. As Montessori has amply demonstrated, children learn better with the use of their hands. Simple experiments in physics and chemistry accompany and follow on the great story of the universe and the key lessons about the workings of the Earth. A series of further experiments are available for the child to discover other aspects of nature. Just as well, in the area related to life, the needs of plants is a key idea and is further explored upon using experiments in biology, including one about human physiology. Likewise, the child may explore areas of geometry, mathematics and language through command cards given as extensions to presentation for the child's further exploration.

*Impressionistic Timelines and Charts.* These are used to give the children a sensorial, holistic impression about a phenomenon being presented. The introduction to a presentation is most generally sensorially oriented to feed the child's imagination from the senses; to entice his intelligent efforts at abstraction; and to invite his determined sense of discovery and invention. These charts and timelines give a general idea without providing all the details as these are left for the child to discover. They also provide examples of

communicative illustrations - means that the child may use to synthesize the results of his work. They may be consulted later on while doing some work and/or research.

*Telling captivating stories.* The older children are invited to hear the stories again and they would most likely be struck with new details pointing to more research. It is not sufficient to just tell a story but it is of fundamental importance to make it captivating through a dramatic manner and personal engagement of the adult telling it. They might start with a question "I wonder how ...?" to address from the start, their reasoning mind and, therefore, allow the child to make all kinds of correlations. Maria Montessori (1948/2004, p. 20) indicated: "To speak to him is not enough for this; it is necessary to interest him. What he learns must be interesting, must be fascinating. We must give him grandeur".

*Limits to available materials.* The art of storytelling comprises an ability to give details but not all the details, enough to strike the imagination but not so much as to eliminate space for the child to pursue the quest opened up. Likewise, key lessons are given in order for the child to find, discover and determine work related to them. The class must provide the necessary and essential - not the superfluous. There is no necessity to have all the books possible when there is a library the child may go to in order to find material for his research. Likewise, there may be animals kept in the class. Mario Montessori indicated how in Kodaikanal, while experimenting with Cosmic Education, he would prepare terrariums for the children to examine how animals would adapt to captivity and therefore, demonstrate the necessities of life for these animals. If the adult prepares these man-made environments with the help of children, the children should be left to make the discoveries.

*Freedom and responsibility.* With the cosmic plan operating in the classroom, the child may freely construct himself when pursuing interests through researches; when working on projects by himself or with friends; when learning the ins and outs of collaboration. We may not expect responsibility from the child if he is not exercising his freedom. Margaret Stephenson (1986, p. 14) noted: "At this second plane of development, the child must be helped to become responsible for his actions and his work, and he cannot achieve this unless we give him the means to practice responsibility." One of these practical means is for the child to keep a daily record of his work, with the day, time and object of

work recorded. This instrument, written up with care and precision will become a means for regular discussion between the child and the adult about the evolution of the work of the child. The younger child will meet more often than the older one, for she is just beginning to take responsibility. Notes are made in the diary after such meetings, indicating avenues to be followed thereon, as agreed upon by the child and the adult. Indeed, we have to give the child a way to meet the requirements of society as well - requirements that may be different from what the child explores through cosmic education. This way, this child is not at a loss if he moves from Montessori to a regular school.

*Great work.* Being free to choose his work and being responsible for his choices, the child will be experience a context of work - individual or in a group - that entices him to immerse himself in pursuing an object of interest for a relatively long time with great and serious attention. Normality will spring up in a context of cosmic education if we, as adults, are on the lookout for it to happen. Three others wanted to further study the cube of polynomials after being introduced to the cube of the trinomial. They studied the quadrinomial, the pentanomial all the way to the octonomial to achieve through their personal work an understanding of algebra mostly by themselves. They all were allowed to immerse themselves in great work, while remaining responsible for their overall achievements.

*Tools for research.* Children may be interested in one topic or another, but they need the adult support to develop the tools to research efficiently and to achieve any form of intellectual satisfaction. When reading about a subject, children should be helped to find their own words to take notes of what they have read. The adult has to provide support by giving techniques and structure to do the research. They may be introduced with the use of small index cards to write up notes. Once the reading is done, they may be helped by tips on how to arrange the cards in an order that would offer a way to communicate in writing the results of the research. They will write drafts to be corrected and adjusted before writing a final version that can probably be illustrated as well. This might lead to exposé to the other children in the class.

**Dual environment for Cosmic Education: going out**

As Montessori mentioned (1948/2004, p.21): "The child's imagination is insufficient for his mind. We must nourish the other facet of his intelligence, that which is has to do with the external world and his activity." Mario Montessori (Kahn, 1998 p. 37), was very clear about how he would constantly go outside to study the geology of the Earth, the living plants and animals. Not only are the children on the second plane eager to explore the world outside the walls of their classroom, there is also the attraction of dealing with people by themselves outside their culture is overwhelming at many levels. If the class has been prepared for such autonomous outings through a formal infrastructure supporting it; if it has ensured that children are not endangering themselves; if it is well conveyed to them how responsible they have to be in order to have the privilege of going out; if consideration is given to individual members of the going- out group, both with children and accompanying adults - when these conditions are met, going out can actually happen. But it has to happen if we are to meet the psychological needs and human tendencies of the children of the second plane (Pottish-Lewis, 1999, p. 30). As Montessori (1948/2004, p. 23) underlined: "The intelligence of man must conquer the world just like the intelligence of the little child has conquered the environment."

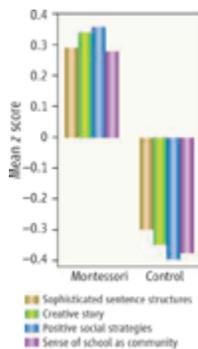
### **Does Cosmic education work?**

Presenting Cosmic education like this may sound like just another educational plan, doesn't it? It has been in effect for many years though, in different parts of the world and in many cultures. But let's not content ourselves with such ubiquity as our base to consider how responsive it is to the needs of the child on the second plane. Instead we ask: what does contemporary research tell us about it?

The renowned scientific magazine, Science published a study entitled: "The Early Years: Evaluating Montessori Education" (Lillard & Else-Quest:2006, pp 1893-1894). When looking at scientific research, one may be critical of the method used. In this aforementioned research, the highest standards of methodology was used. For example, when measuring a trait or another, one may wonder what other influence might affect that trait when children are concerned. Are these children coming from the equivalent socio-economic background if they are part of the experimental group and the comparison group? We know that the fact that parents may choose an educational institution that may bias the results against children simply left by their parents to go to the local schools. Or one may

wonder if the variables hypothesized were properly applied to the experimental group. All of these aspects were accounted for in the research method of Lillard and Else-Quest. They studied children of inner city neighborhood, thus not the most affluent ones. Measures show that children of the experimental and control group originated from equivalent socio-economic background. All children participating in the study were the object of a request by their parent to attend a Montessori program the public school board offered. Because of the level of demand, a lottery system had been in place to select the children: some did, some did not. But all those who participated in the study had applied to the program when the children were old enough to attend that program; therefore comparable children in terms of parent choice for the school of their children to attend. All the teachers had received AMI training and the school provided the children with a Montessori program recognized by AMI-USA. So again, the children were subject to good Montessori practices. The method being sound, what were the results?

We will skip the results obtained for the younger children (end of the Casa-kindergarten years) to focus on the object of our interest, the children at the end of their childhood years. There were 28 children in the control group and 29 Montessori children who participated in the study. Cognitive - academic measures were obtained as well as social - behavioral ones. Traits of these children were measured with standardized tests and revealed most generally clear cut differences between the two groups:



**Results for 12-year-olds.** Students in the Montessori program wrote more sophisticated and creative stories and showed a more developed sense of community and social skills. Scores were converted to average z scores (18).

The results showed that Montessori children were more creative in their writing and showed a more developed sense of community as well as social skills. Evidently, the authors indicated that more studies were necessary to document more thoroughly these results.

Some such studies have been done and the results go in the same direction. From

observation over time, we knew that when the developmental needs of children were met properly - that is when they were in accordance with their profound quest for development - these results would be observed. Contemporary scientific methods add measurement precision to those facts.

On many different aspects, the Montessori approach, when done properly, confirmed many demonstrated educational principles modern science has reinforced, as Lillard (200 ) has clearly presented, thus its success. She also indicates how modern education in general is limiting the child's development because of its industrial model. Worried that, for the first time, their country might have a generation of young adults who will, as a group, achieve less than their parents as their government indicated in their report: "A Nation at Risk", the same government produced a policy of systematic testing of children all through their schooling and pegged the teachers' salary and actual job on the results of these tests. Was it successful? Asking the question is answering it! Their jobs being on the lines, teachers started teaching for the test, thus reinforcing a sense of conformity on the part of children; and nothing at all related to helping a child develop her capacities for engaging the reality of the world in order to get a basic sense of dignity. Is it different elsewhere or should we realistically consider that the problem is everywhere and the same in other developed countries. The irony is that emerging countries are desperately copying this industrial model approach. Let's read this advertisement published recently in the Newsweek magazine. It is entitled: "*Adapting education to the needs of the economy and society*"

*Despite reforms and a new charter initiated a decade ago, our country educational system still lags in preparing many of its citizens for the workforce and civil society.*

*In September of this year (the) minister ... implemented a new program comprising 23 specific projects around 4 main objectives:*

- *reducing the number of children leaving school before the age of 15;*
- *closing the educational disparity between urban and rural students;*
- *addressing and meeting the needs of the country's emerging sectors,*
- *and closely tailoring education programs to the needs of the workforce*

*This program also includes nine conventions with key state agencies in Ministries to ensure that the reforms can be effectively carried out as well as to provide the necessary governmental and physical resources needed.*

*As the minister ... nonetheless stresses the importance of international partnership and collaboration between Europe, the MiddleEast, the African Continent and the United States. "I think that everyone will agree that a modern educational system is an open one," he concludes.*

This political intent refers to children only to indicate that the number leaving schools should be less. Otherwise, where is the reference to the child's needs and dignity? These approaches in emerging countries, when they are done with such resolves, do lead for a while, to the improvement in the conditions of children because of the larger modernizing ambiance that everyone share in. Children will listen to the ambient atmosphere and will try to participate in their own ways, but then, when the enthusiasm fades as a part of the goal is somehow attained, they will end up where we are - with our human problems: frustration, violence, despair, dropping out, suicide, over-sexuality, anonymity, restlessness. Nothing quite dignified, is it?

There is no doubt that education is in crisis, as De Koninck (2007) indicates. The question that relates to our basic humanity has not been addressed. On the contrary, the human being is viewed within limits of being an economic entity and part of the big industrial machine. Sometimes glimpses of hope shine - a reform somewhere goes in the right direction. However, too often, reforms fold onto themselves because they are not based on sound premises such as: improving the conditions for spontaneous engagement of the child to actually happen; finding ways to foster intrinsic motivation by providing culture and objects of study; challenging the budding reasoning mind with worthy realms for the imagination to project itself into; feeding this reasoning mind. Schools and classes are not inclined towards offering concrete "milieu de vie" for the child, as well as inspiring hero models of real life situations in order for a child to test his moral capacities. This endeavour aids him in developing and constructing a conscience capable of achieving an independence he so craved for. Reforms in education, just like help to the development of the child, can only be measured in terms of the dignity it considers in the children; of the dignity that emanates from the child and the dignity we acknowledge him with. And we know how to do this.

Children, as fully functioning individuals, are eager to actualize what their hard wired make up requires them to do: develop and construct their personality in order to

achieve their finality and maturity as independent and free adults. They need our help and the proper conditions for doing so. Maria and Mario Montessori observed and developed these conditions, as years of practice and contemporary scientific studies demonstrate. They can be summarized in two words: Cosmic education - an education that encompasses everything; engaging the child in society and helping her develop personal conduct that is morally viable. So equipped, a child may enter the third plane of development, the rite of passage into adulthood; with a reason that is able; an imagination structured and channelled toward understanding and expressing; an ability to relate to others with respect and consideration and a conscience illuminating one's choice, decision and orientation into the world of adulthood and maturity.

Should we then have an index of dignity? Just like our GNP index or CPI? Let's imagine a dignity index with sub-indexes for children on each plane of development. Perhaps adults would be able to project themselves into the preoccupations and necessities of our children's development if we had such a language. One part of it could measure how happy children are when they go to school. Are they joyful? Children who have had Cosmic Education through their elementary years succeed in high school. They do win honours, or achieve feats that win them prizes. They are holding position of leadership in regular schools afterward. But those were not the aims while they were in their cosmic education environment. These are only corollary events. Imagine if children could pursue their development in a milieu more attuned to the particular needs of this third plane of development!. Imagine if they could develop in dignity and become "Cosmic agents", as Maria Montessori would call them!

In her last public lecture, she said: "The task of the child is the construction of man, orientated to his environment, adapted to his time, place and culture." (Stephenson, 1986, p. 6). The joyful child that we may encounter through Cosmic Education lives an exciting, constructive life. And who would dislike being beside a happy person? This is the reward for the adult living in his company, Kay Baker (2007) told us. But Cosmic Education not only dignifies the child in his person but also the whole universe in his eyes. So we have a human being who develops a profound respect for his planet, his living world and the company of his fellow human beings. What he gets for himself, he gives to the rest of creation. The outcome of Cosmic Education is not only a joyous child but a resilient one.

May I invite you then to the next time a child comes to show you with his latest discovery, or work, or conduct in society, with joy, pride, with dignity, not only to discuss with him his achievement, but also more profoundly that you see through it his human dignity. In return, not only will your own dignity be enhanced, but you will also be declaring what others have done in 1948 about dignity, freedom and peace.

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