direction



Talking about Children: Working with Parents

Publication of the Montessori Society AMI UK





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You are invited to the UK AMI Open Forum

During the 2007 AGM in Amsterdam an exciting and unprecedented event took place.

At the initiation of the Human Resources Committee of the AMI Board, representatives of all AMI's constituents were invited to attend a three–day Open Forum. Participants were asked to brainstorm five key questions on the future of the Montessori Movement. Based on these discussions the group set eight Draft Ten-year Goals and a preliminary Action Plan which were submitted to the Board for consideration. These Goals and Action Plans will now become part of the AMI Strategic Planning process and will allow the organisation to move forward into the next century in an effective way to Champion the Cause of all Children.

The AMI board is encouraging its Affiliated Societies all round the world to organise their own Open Forum to canvas the thoughts and aspirations of the local community so that these can be included in the overall strategic plan. With this in mind the Montessori Society AMI UK, in conjunction with the Maria Montessori Institute AMI is holding a UK Open Forum.

Regulars

What You Should Know About Your Child Recent research on movement and the young child has shown that meaningful activity is inextricably linked to the makings of the intellect. Parents are offered some practical ways to help their growing child. - page 13

Dear Maria...

A series addresses present day topical dilemmas by looking to Maria Montessori's writings. We consider what may have been her response to the recent publication of the briefing notes of The Cambridge University Report on Primary Education. - page 14



This will be held as part of the Montessori Society AMI UK AGM until Annual General Meeting.

We are urging you to set aside this afternoon to join us to express your views. This is your opportunity to make a contribution in the sure knowledge that everybody's view is valid and will be taken into consideration when the final strategic plan is set.

You are the Montessori Movement and your views count so please try and join us at:

Maria Montessori Institute AMI 26 Lyndhurst Gardens London NW3 2pm on the 9th February



The proceedings from the Amsterdam Open Forum can be found at www.montessori-ami.org/openforum

From the Editor

We are very excited to be able to bring to you the first issue of our new publication. *direction* will be published twice a year and replaces the Montessori Review and Montessori Direction. We would like to take this opportunity to express our thanks to Joanna Morfey for her years of hard work and dedication as editor of the Montessori Direction.

The impetus for making this change to our publications came from a strategic review of the work of the Montessori Society AMI [UK] which took place this summer. The need to produce something that would appeal equally to parents and teachers was identified and has resulted in this new format. We hope that we have succeeded in bringing you something that is both thought provoking to teachers in their work and also helps parents to understand more about Montessori principles. As members of the Montessori Society AMI [UK] you will

Contact us Montessori Society AMI [UK] 26 Lyndhurst Gardens London NW3 5NW 020 7435 7874 of course still receive the AMI publication 'Communications' with in depth articles about Montessori pedagogy and the AMI Bulletin giving news about Montessori events and happenings around the world.

Since this is the first issue of *direction* we are very keen to have your feedback on what you like, what you don't like, what you would like to see – this kind of information is vital to us if we are to produce something that will really serve the Montessori community in the UK – both teachers and parents. So don't hold back - let us know what you think.

Louise Livingston

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Montessori Society

The Montessori Society AMI [UK] has been making some changes that will bring many additional benefits to members. At the AMI Centenary conference in July a new partnership between the Montessori Society AMI [UK] and two of the AMI approved material manufacturers was announced. Nienhuis and Gonzagarredi have agreed to work together with the Montessori Society to try and bring Montessori to more children in the UK. This new partnership has made it possible to offer some exciting new benefits to members. See back cover for more information.

In addition a new Parent Membership option is being offered. The Parent Membership will be priced according to the number of members within the school and will allow schools to invite parents to seminars organised by the Montessori Society, and to take advantage of the other numerous benefits received.

The Montessori Society will be holding its next Seminar on the 1st March 2008 in London. The

seminar entitled 'The Pathway to Self Discipline: The Montessori Approach' will be given by the AMI trainer from Ireland Nikki Hughes. Traditionally it is felt that if we want to have disciplined children then we must exert some kind of control over them so that in the end they bow to our superior strength and adopt our way of acting. We do not expect self discipline to arise spontaneously in children - we tend to think it is something that we need to impose on a child. But this is not self - discipline - this is the kind of discipline that disappears as soon as the adult exerting their will disappears. Maria Montessori hoped for so much more than this. The Seminar will look at the traditional view of discipline and contrast it with the way in which self - discipline is developed according to the principles of Maria Montessori. It will be of interest to all teachers, parents and students who would like to understand more about the Montessori apparent contradiction that self - discipline can be nurtured by granting the child freedom.

For more information or to download an application form for the Seminar and Society membership visit www.montessori-uk.org



www.gonzagarredi.it

News Maria Montessori Institute

The Discovery of the Child Hope for the Future

The Institute's two Conferences contributed greatly to the dash and pizzazz of the Centenary year. While our first conference in July was chock full of Montessori presenters who spoke of Montessori past, present and future, our second Conference in October showed, in the light of current scientific research, how accurate Maria Montessori's discovery of the child really was. Authors Angeline Lillard ("Montessori: The Science Behind the Genius") Sue Palmer ("Toxic Childhood" and "Detoxing U.S. neuropsychologist Steve Childhood") and Hughes were the main speakers, along with Philip O'Brien from Unicef and Andre Roberfroid, President of the Association Montessori Internationale. It was heartening and very evident that they all greatly appreciated each other's contributions. Angeline Lillard also enjoyed an opportunity to visit the Institute and to observe in our Children's House and Elementary classrooms. She also gave an interview to the Education Editor of the Times which received much attention. You can read the actual interview by going to the website timesonline.co.uk/education, date October 15. Proceedings of this conference and the July conference will be available shortly on our website.

AMI Refresher Course

Our two day Refresher Course for all AMI graduates will be held on the weekend of 12th and 13th July 2008 and the subject will be Creativity. We are planning a blockbuster to compete with the quality of conferences held during this past year. It will be good to gather again for this annual two day feast of shared knowledge and real refreshment, a fitting end to the academic year. We will be contacting all Alumni with further details when these have been finalised.

6-12 AMI Elementary Course

The first part of the Elementary Course took place this summer with Ann Dunne from Ireland as Course Director assisted by Jackie Eibert from the U.S. It was wonderful to welcome so many 3-6 Diploma holders from MMI as well as from other centres around the world who now wish to go on and gain the 6-12 Diploma.

Contact us in one of the following ways for further information on any of the above Email: info@mariamontessori.org

Website: www.mariamontessori.org

Montessori Education [UK]

Montessori Accreditation Attainable Quality for All

At the Centenary Conference held in London last month AMI President André Roberfroid articulated an enormous vision for Montessori's second century: 'to take Montessori into the schools.' This vision is challenging, because reaching out far and fast could mean sacrificing quality. In this, quality assurance, in the form of quality improvement, is key, a concept of quality recognition that sees progression towards improved quality and raised standards of practice as integral to day to day working, as part of the structure of Montessori practice, not as an optional extra. This is where Accreditation comes in. Montessori Education (UK) has become the leader worldwide in the field of school accreditation and has developed an impressive body of experience over the last 15 vears.

What we understand by accreditation has evolved over this time too, from a snapshot inspection to assess a school's practice against a set of quality standards, to a quality improvement process, designed to support any setting embarking on it to enhance their Montessori practice. This change, precipitated by the government's disappointingly short-lived 'Investors in Children' scheme, has been valued both by recently- accredited schools, who have found the supporting element provided by our highly experienced mentors hugely valuable, and also by schools which are rightly proud of their long-standing accredited status. The fresh focus on continuing improvement is giving them new directions to head in and new visions to realise, particularly as they begin to work towards realising André's vision.

As part of ME(UK)'s contribution to meeting the challenge we have revised our accreditation scheme under the new name of Montessori Accreditation. The new scheme offers three different pathways to accreditation, organised so that schools needing the most support have the greatest input from our skilled mentors. Schools that already meet the quality standards will be fast-tracked through the process in recognition of what they are already achieving in their practice, and to enable them to take that practice to a higher level.

If you feel you would like to know more and are keen to put a quality stamp on what you do in your school, contact the Schools' Accreditation Coordinator on 07877 620 524 to find out more.

Helen Prochazka

Features >

Talking about Children: Working with Parents



As Montessori teachers it is very important that we find a way to help parents understand the developmental principles that we are using to inform our work with the children. **Shannon Helfrich** gives some insight into how we can interact with parents and what kind of things it is important to help them to understand.

arents today are inundated with media and written materials designed to support them in their role as parents. Many of them are keen to learn the "right" things to do or not do, keen to learn the techniques for raising "good" children. And yet, as they read they discover as much conflicting information as they do insightful information. Often, this is no help!

To make matters worse, our mobile society has left many a young parent isolated from the old network of extended family, that in the past functioned as the "wizened elders' of parenting. In today's world, young parents have typically lost this resource so they look to other avenues to replace the cultural wisdom. This is where teachers can play a greater role. We are collaborators with the parents. We can support, educate and encourage parents.

There are many opportunities to work with parents; some formal and some informal. Our contact with any family begins when they inquire about the school for their child and hopefully come to



observe. For most of these parents, what they see

in the classroom is very different from their own experience at school. A few minutes on the part of the teacher, some time with the administrator, and a good guide sheet for these observations can help significantly. The prospective parent can ask questions and get some insight into the uniqueness of our Montessori approach.

Once a parent has enrolled their child, the real opportunity for education begins, usually with some form of New Parent Orientation. New parents can meet experienced parents, get a sense of the school community and get their first insight into the Montessori approach to child education. This is a good time to go through the essential elements of the Parent Handbook. While this might seem like a lot of "nitty gritty" at the beginning, we need to remember the basic human need for orientation which brings physical and psychological security. A new parent who feels confident in what is expected of him/her can become a part of the community and take care of their child's needs with comfort. Now is the time to talk about pick-up and drop off procedures, lunch guidelines, clothing expectations, the box with a change of clothes etc.

Throughout the school year, parents are invited to attend a series of Parent Nights. The focus of these gatherings ought to be on parent education. This is our time to really share what we know and understand about the nature of the child, with the very people who have the greatest impact on them. Then we can rest assured that the child will have the best opportunity to grow and learn. The child who spends a few hours a day within the Montessori prepared environment will be able to go home and continue to feel supported and encouraged. While there are always practical matters to review at the parent nights, the important objective is to keep the focus on principles of good parenting. Often, the focus is on helping the parents to understand the Montessori materials or the classroom applications. This is a valuable experience for every Montessori parent, but cannot be the sole focus of Parent Nights.

For many teachers, the most intimidating part of parent communications is the formal Parent Conferences. This is the time to share with the parents the progress their child is making in learning and any ways the parents can support their child's independence and continued growth and learning. Many schools schedule these conferences at a set time throughout the year. Other formal conferences are scheduled with the parents to deal specifically with challenges. The focus of these conferences should be exclusively the issue at hand. Remember, we are collaborators and often the challenges we experience with a child are the same challenges the parents are dealing with on a larger scale at home. Brainstorming strategies and providing community resources can all be a part of this communication.

One additional formal contact with parents occurs when the parents come to observe their child in the classroom. Anything we can do to help the parents feel comfortable, and appropriate, and to provide insight into their observations goes a long way in helping the parents understand what they are observing. Remember to tell them that the behaviours of their child are probably not the norm. Children seem to lose a bit of "normalisation" when the parent comes to observe. This is heartening for both the teacher and the parents to remember.

A new parent who feels confident in what is expected of him or her can become a part of the community and take care of their child's needs with comfort

There are also several informal opportunities for contact with parents. We see many parents on a regular basis during drop off and pick up times. Parents don't always understand that we are not available to them during these times. Beina pleasant and warm in greeting the parent is important, but we have to set the limit that this is not the time for a conversation. We see parents coming and going in the halls. Be warm, but this is also not a time to socialise or problem solve. While we set boundaries to protect our availability to the children during these two aforementioned times, we must set times when we are available. Make parents aware of when and how to contact you by phone. Parents then will be more able to respect the boundaries we set, because we have made ourselves accessible to them at other times.

It doesn't seem to matter whether the contact with parents is in the formal or informal context, this can seem to be an overwhelming part of the teachers mission. Let's look at how to work together with the parents and also at what aspects of our Montessori philosophy might be helpful in supporting the parent in their life with the child.

There are several things to keep in mind regarding parents. I offer some simple guidelines.

Recognise and respect one another's knowledge and expertise: it is humbling to admit that the parents probably know this child better than you do. While the parents may look to us as the experts on the theoretical knowledge of child development, they are the ones living through it on a daily basis. We need to respect the experience and knowledge of the parent and validate them for this expertise.

Allow information to be shared through two-way communication: communication between teacher and parents is no less important than communication between parents. Many parents have insights from their own experience that will be quite valuable to us as the teacher. Listening indicates to the parent that they have something important to contribute. It helps them to feel a part of the collaboration, as opposed to being dictated to by "the expert."

Acknowledge and respect diversity: I don't even want to count how many versions of "family" exist in our current society because it really doesn't matter. Whatever form the family takes, that is the family the child has. There are cultural influences, religious influences and familial traditions. We don't have to personally agree or disagree with any of these, but we must respect their differences and understand them as best we can.

Create networks of support: Some times, the teacher is not the best person to offer help, or does not have the expertise necessary to be of help. In these cases, the wise teacher has a network of support that s/he can suggest. Sometimes, another parent with similar challenges is sufficient and at other times, more professional resources are needed.

he way in which we can help parents to gain the information they are seeking falls into three categories.

First: the nature of growth and development Parents don't need the whole lecture and all the details of the Four Planes of Development, but an overview can be helpful, as we look at each individual plane of development and help parents to see how the manner in which the child learns changes from plane to plane. We can use the Geometric Chart of the Four Planes to explain the cyclic nature of development. This helps parents to see that growth and learning is part of a predictable whole. It is a continuum throughout early life and the needs of the child are going to change over time. It is encouraging for parents to understand that the skills they learn at earlier stages of their child's life become the building blocks for communicating and dealing with their child later in development.

The overarching role of the basic human tendencies provides insight into the learning process and can serve to remind all of us that the dominant powers for learning in each plane are amplifications of these human tendencies. It is not necessary to look at all the human tendencies, but we can look at a couple examples that parents can relate to in their own lives and see how they can be observed in the lives of children. For instance, we can take orientation - that most basic human tendency. The newborn must orient to the physical and psychological environment. They must create landmarks of familiarity for themselves. They learn behaviours by modelling themselves after those they trust. We can look at exploration. The young child explores the limits of their own body and later the world surrounding them. They come to an intimate relationship with this world as an interesting and safe place to learn.

Most of the parents in our communities have children in the first and second planes, so a bit of depth about growth can be helpful. Looking at the powers for growth (absorbent mind, sensitive periods for first plane, and the powers of abstraction and imagination in the second plane) can be helpful.

The Sensitive Period for Language is an easy example for parents to observe. Every child, everywhere in the world creates for him/herself in a relatively short period of time a mother tongue- a spoken language. The child learns to communicate thoughts, ideas and needs with words. The vocabulary and structure of language develop side by side.

The Sensitive Period for Movement is also easily observed in children as they first master the demands of locomotion and then the refinement of the hand as the instrument of the mind. What parents often don't understand is the role of movement in relationship to the will and as the vehicle in the brain for the building of neurological pathways needed for later learning.

The Sensitive Period for the Development and Refinement of Sensory Perceptions is virtually unknown to parents. They readily acknowledge that all humans use their five senses, but to understand the role that these senses play in the learning process is often missed. The refinement of the sense, which is in actuality the training of the brain to interpret and analyze the incoming data, leads to



the creation of the basic classification system we use throughout our lives.

The Sensitive Period for Order is essential in supporting the creation of both a capacity for external order, but also mental order. It is one level of "knowing" to be able to put a group of objects into a sequential progression; it is quite another level to apply that mindset to a pattern of words in a sentence or the process of addition. It is one level of order to keep the physical environment tidy, but quite another to create order when it is needed and not present.

An understanding of the nature of the Absorbent Mind is important for parents who quite easily presume that the child thinks like they do. The notion that the child's mind works so differently from our adult mind is a difficult concept to take in.

Second: the nature of learning

We can look at what we know today about the nature of the brain. Neither we nor the parents have to be neuroscientists, to understand a few of the basic notions.

Third: supporting the child through control of the environment

Home is a prepared environment, whether it is thoughtfully prepared or not. For many parents, this is a new notion. They think about their home as their place, and indeed, it is, but is it only a place for adults? Many children feel like "aliens" in their own homes simply because no thought has been given to making a space for them.

As soon as the child can begin to move, s/he becomes an interactive explorer of this new world. The child who is given freedom to move and to explore builds a sense of confidence both in him/ herself and in the world. From early on, the child placed on the floor with interesting things to move toward becomes stimulated. The act of moving and the freedom to respond to the interest stimulated

anguage is a marvellous aspect of development. It also needs a rich environment from which to draw. For the very young child this simply means that they are spoken to with clear vocalisations. There is a moment in time when the child begins to replicate the sounds that they hear. The art of babbling allows the child to work out how to use their own muscles to make these sounds and s/he is soon able to put simple sounds together. Thus appears on the child's lips their first word! A rich language environment does not start and end with being spoken to. The child must also see/observe the other means we use in our culture to communicate.

Research for the last thirty years has shown that children who are read to are much more easily taught to read. Our world is filled with symbols. The child sees these, innately knows that they are used to communicate and this creates a desire to learn to decode the secret of the symbols. As the parent reads the story to the child, the child can see the wonderful illustrations that support the words, but it is still the words that tell the story. It is the words that communicate the magic! Any parent who has been so audacious as to change the story knows that the child has already discerned that the symbols do not change!! Beyond children's books, do our children see us reading? Do they see the joy, the interest, the excitement that reading brings to us? This adds to the interest and motivation to learn the magic of the symbols.

As children grow in their powers of movement, they can become participants in the life of the family. The drive toward independence is great for the young child. Some of the first power struggles a parent may find themselves engaged in are with a child who wants to "do it myself!" Not only are



children great explorers, but as they move, they development greater powers of co-ordination. The first great "gymnasium" for practising these new skills is the home. The child wants to feed himself, dress himself and do simple everyday, practical tasks that he sees others carry out for their own benefit. Any time we do something for the child that the child is capable and desirous of doing for himself; we are an obstacle to independence! It does take some forethought, planning and patience to allow the child to function and make choices, but this is critical to the development of a sense of competence. The child who can do for himself grows in self-esteem and confidence. We can help parents see the value of allowing the child to function at their innate level of skill and competency. Children are not efficient, they are not neat and tidy, to say nothing of quick when carrying out common tasks, but they need the right to this participation to feel respected.

As Montessorians, we understand the challenges of finding child sized and child proportioned items and tools. Many parents have never thought about the different proportions of the child's young body and how their capacity to carry out tasks is hampered by oversized tools and uncomfortable furnishings.

espect for the child revolves around allowing them to be participants in the life of the family community. For Dr. Maria Montessori, respect for the child was critical. Respect comes from how and what we say to the child. Communication with clarity, focused on what we desire the child to do, as opposed to what not to do is the basis for respect. Respect comes from being spoken to, not at or about. Speaking clearly, without innuendo is essential. The child is a literal listener. The child's vocabulary is still limited and s/he can only take at face value the words they hear. Before the age of 3, logic is beyond the capacity of the child. Children have no mental construct for following logical explanations that lead to an expected conclusion. Even if the conclusion is stated for them, they can't follow the This capacity begins to show itself thinking. between the ages 4 $\frac{1}{2}$ and 6 years. Respect means allowing the child to do what s/he can do, at a level that the child is capable of. This child is still learning and perfecting everyday skills. This takes time, practice and the opportunity to make mistakes, for it is our mistakes from which we learn the most. Not many of us, if any, can perform a new skill perfectly the first time. We make mistakes and we correct those mistakes! Or life goes on and the mistake becomes nothing more than a learning experience. Often, we don't need anyone else to point out our mistakes, they are pretty self-evident and the challenge is to problem solve the difficulty in our own novel manner while still learning. This acceptance of imperfection is so important for the young child, still very much under construction!

This article is edited from the transcript of a Seminar given to teachers and students by **Shannon Helfrich** in London. She is an AMI trainer and has been involved in Montessori since 1971. She will be the Director of Training for the AMI Course to be held in China in 2008.

Features Montessori - New Dimensions



Montessori is 100 years old and yet her discoveries are as relevant today as they were 100 years ago. As Montessorians we are convinced of this but now it seems so are many other professionals working in the field of Child Development. In this article **Irene Fafalios** summarises a little of what modern science has to say about Montessori's ideas

here is a timelessness about Montessori - a continuity, a familiarity - which allows us to feel not only a part of its history but also very much a part of its history that is in the making. The history of the Montessori Movement, is characterized by a sequence of notoriety and success in one part of the world, whilst plagued by critique and misunderstandings in another. The Movement has been associated with a whole range of political, religious and social groups, which although at first sight might appear to have been detrimental, have in fact taught us many lessons. There is a definite 'hard core', to Montessori, but there is also a malleable, flexible dimension, which has allowed for its adaptation and continuity in time. This duality - at the heart of our thought and practice - is what has enabled us all to be gathered here in celebration of the Montessori Centenary.

hen I enrolled for my first Montessori training course at [what was then known as] the Maria Montessori Training Organisation, here in London, I told myself: "Well, I'll just do this course, out of curiosity, and then move on to some furniture restoration." With every new project I undertook, I always began by telling myself those very same words: "Oh! Well, I'll just finish this one, and then I'll sign up for furniture restoration." 30 years down the line, I am still telling myself the very same thing: "Well, I'll just do this conference and then - furniture restoration!" And yet I must say, that for the past few years I am beginning to think that maybe I don't want to be a furniture restorer. Why? I am sure you all want to know!

Well, there is a definite change of air in this 21st century. And the biggest change is that which is happening here, amongst us, within ourselves. We are moving with far greater confidence - there is a boldness, an assuredness of what we are doing - we are not apologizing, justifying, or making excuses - we are stepping out - saying who we are - explaining, communicating - entering into dialogue

and debate. We are making ourselves noticed. We are no longer seen to be so 'fringe' and 'alternative' - our terminology no longer sounds so strange and quaint - our classrooms are no longer looking so post-war - and behind all of this there is a strengthening organization - a gathering of increasingly diverse people, from far wider educational and cultural backgrounds - with a wealth of expertise - committed, enthusiastic, competent - able to communicate at a far greater speed and efficiency than ever before. There is a vitality, an enthusiasm and an urgency. There is a pulse that we have picked up, and we are moving in! [...and I want to be part of this!]



Why has this happened? How has this change of air, come about? In my opinion this 'feel-good' factor is a result of certain developments, which have taken place over the last 2 decades. First of all, our work is being validated by recent brain research. Secondly, we are engaged in discourse with many other professionals working in the field of child education and development. Thirdly, we have moved out of the classrooms with Educateurs sans Frontieres and are applying the Montessori classrooms with Educateurs sans Frontieres and are applying the Montessori principles to a far wider spectrum. And finally, Montessori organizations world wide are beginning to work together.

One of the most significant 'confidence - boosters' that we have received within the last 20 years, is that an important part of our work is finally being validated by professionals in other fields - namely, psychologists, pediatricians, educationalists and neuroscientists. It has been the recent discoveries in brain science, however, which have served to bring all these disciplines together.

Attempts to think about the implications of neuroscience for child development began in the 1970's, when educators looked at what brain science might tell them about how to help children with learning difficulties. It has only been in the last 15 years however, that psychologists [who study patterns of behaviour and mental processes] and neuroscientists [who study brain anatomy and physiology] have started serious collaborative research into how the biological brain might implement mental processes. The ensuina collaboration of educationalists, psychologists and neuroscientists has meant that educational processes are constantly being reassessed in the light of current brain research. The consequences this will have on learning strategies and educational policy makers, will be significant - and we will be one step closer to what Dr.Montessori referred to in the introduction of her book The Formation of Man. as "Psycho-pedagogy" i.e. an education which follows the guidance of psychology and not of "philosophers and philanthropists...or of some individuals inspired by piety, sympathy or charity."

I intend to highlight just a few areas where we can draw parallels between what scientists are claiming and what Montessori intuited, observed and discovered 100 years ago and we continue to practice in the 22,000 Montessori educational establishments scattered all over the globe.

cientists today, due to powerful brain imaging techniques, can see how every part of the living brain grows and develops. This has enabled us to see that the development of the brain, particularly of the cerebral cortex, is not completed in the womb. At birth the baby is considered an "unfinished baby" [Gerhardt] - incomplete - it is, as Dr. Montessori described, "a spiritual embryo". Contemporary writers call this baby, an "external foetus" [Gerhardt] and it spans that time in our lives that neuroscientist Doug Watt has so aptly referred "unrememberable a n d to as. unforgettable" [Gerhardt] - a perfect description of the work of the 'Absorbent Mind' in those first 3 years!

As soon as we recognise the existence of an "external foetus" however, the question arises, why are babies born with such 'primitive brains'? Sue Gerhardt, a psychoanalytic psychotherapist wrote in 2004:

"the baby needs to be programmed by adult humans...this makes evolutionary sense as it enables human culture to be passed on more effectively to the next generation. Each baby can be 'customised' or tailored to the circumstances and surroundings in which he or she finds him or herself. A baby born into an ancient hill tribe in Nepal will have different cultural needs from a baby born in urban Manhattan."

We could almost mistake this passage as being Dr Montessori's or perhaps even Mario Montessori when talking about tendencies? But let's move on...

What is it in the brain that allows the individual to adapt, to learn?

Until recently, it was believed that because our brain reaches 95% of its adult weight by the age of 6, little change could occur after that, so things were pretty much set for life. This caused a great stir in the 1980's with a myriad of popular articles and books on how we can enhance the brainpower of our infants. This view of the world through "the prism of the first 3 years" [Bruer] also benefited the Montessori Movement, for we saw a renewed interest for Nido's and Infant Communities, as well as for Children's Houses. Now, 20 years later, at the beginning of the 21st century, the very important discovery that neuroscience has made, is to have recognized the plasticity of our brain cells. Scientists are seeing that in fact the brain is not fixed, it remains malleable throughout life "a living, dynamic tissue ... constantly updating itself to meet the sensory-motor, emotional and intellectual demands at hand." [Eliot]

ynaptogenesis - the creation of synapses - a communication point between two brain cells or neurons - enables the transmission of information to and from the brain. This begins in the 5th week of gestation and continues at an amazing rate [1.8 million new synapses per second!] through much of the first year and in some regions of the brain well into the second year of postnatal life, resulting in a massive overproduction of neural connections. However, by following "the same children and scanning their brains at 2 year intervals, a second wave of massive overproduction was detected ... in the front part of the brain" [Giedd] - the part involved in judgement, organization, planning and strategizing skills. This second period peaks at pre-puberty - at about age 11 in girls and 12 in boys [Giedd].

But this is only half the story. It seems the brain develops through 2 simple but powerful processes. The 1st is this overproduction of synapses, where about twice as many synapses as the brain will eventually need, are produced. The 2nd and equally important process for development, is the subsequent "fierce, competitive elimination, in which the brain cells and connections fight it out for survival." [Giedd] This **pruning of the synapses**, is nature's way of adapting and fine-tuning each organism's neural circuits to the exact demands imposed by its environment.

"...synapses that are rarely activated - whether because of languages never heard, music never made, sports never played, mountains never seen, love never felt - will wither and die." (Eliot)

Here, we see how in tune our work is. Following a period of synaptogenesis, there follows a period of consolidation, a period of integration, perfection, enrichment, expansion - this is the pruning phase of the synapses - where the traits, qualities, abilities and skills that have been formed, are being used, tested, applied and hence strengthened - this is the pruning phase, which will determine which neural connections will be preserved.

Dr. Montessori was clearly aware of these 2 big growth spurts, these 2 hugely creative periods in a person's life and in both instances she emphasized how critical a role the **environment** plays in enabling the individual to adapt and assume the characteristics of his time and place. We can see how contemporary Montessori's understanding was, in reading neuroscientist Lise Eliot:

"A young child's environment directly and permanently influences the structure and eventual function of his or her brain. Everything a child sees, touches, hears feels, tastes, thinks and so on translates into electrical activity in just a subset of his or her synapses, tipping the balance for longterm survival in their favor."

If we view development along the basis of what brain scientists are telling us - in terms of overproduction and pruning of synapses at 2 significant moments in our lives - just after birth and just prior to puberty - and if we consider how significant the environment is for both these stages, then Dr. Montessori's **developmental scheme**, was clearly spot on!

e can no longer only view the individual child in its physical, psychological and intellectual entirety, but we need to view this individual within its developmental entirety. For every stage assumes the significance of creativity we have explosive moments of intense activity and then we have consolidation – but it is all creative. Both the creation of the synapses and the consequent pruning down, are vitally necessary for the developmental plan to unfold. What scientific research is ultimately showing, and what Dr.Montessori had also clearly stated, is that it's either all or nothing and until we have it all, we shall not see the full benefits of the work....or, more significantly, of development!

In the April 1997, White House Conference on Early Childhood Development and Learning, entitled: *What New Research on the Brain Tells Us About Our Youngest Children*, neuroscientist Dr. Carla Schatz of the University of California at Berkely, concluded by saying:

"Brain science tells us, ...that there are early periods of development, windows of opportunity or **critical periods**, as scientists call them, during which time, experience is essential for brain wiring." [Bruer]

The term 'critical periods', 'windows of opportunity' - some narrow, some wide! [as neurobiologist, Lise Eliot, says] - and even 'sensitive periods' as we know them to be, are all used interchangeably throughout the literature. There is no apparent consistency, even though the term 'critical period' is possibly the most popular. However, I found one explanation, in John Bruer's book *The Myth of the First Three Years*, which I believe is of particular interest to Montessorians. He states:

"Critical periods are time spans in development during which and only during which, animals, including humans, can acquire specific traits, behaviours, or skills. Sometimes you also see the term "sensitive" period. At one time, sensitive periods were thought to be critical periods that ended gradually rather than abruptly. More recently, neuroscientists have learned that most critical periods end gradually rather than abruptly, rendering the original distinction between critical and sensitive periods less useful."



Having redefined "critical periods" therefore, we see that they have been recognised as dealing with very basic traits necessary for survival and reproductive success. Scientists can now identify specific critical periods in the human, for maternal recognition, parent-infant bonding, for auditory and visual development, for memory training skills, for mating, for language, for social-emotional development - and many more! This is by no means a definitive list. In fact, most brain functions it seems are bounded by critical periods.

"...most critical periods probably begin with the first 4 years of life, when the synaptic tide turns from waxing to waning in all brain areas." [Eliot]

Flow experiences require effortless action and they are those moments where what we feel, what we wish and what we think are all in harmony

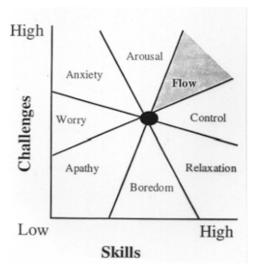
Critical periods in some instances may close in the 1st months or years of life, others for basic sensory abilities, like vision and hearing, may extend a bit further, whilst others still, which need to establish far more complex skills, like language and emotions, extend throughout childhood into early adolescence.

"... abnormal experiences during a critical period can result in permanent, abnormal and nonadaptive outcomes that no subsequent amount of normal experience can correct." [Bruer]

N one of this should surprise us. However, questions such as: "How do we optimize the brain's ability to learn?" [Giedd] and "Whether teaching should be keyed to those critical periods when the brain is most receptive?" [Bruer] are now being asked by scientists. We need to wait and see what answers they come up with!

One thing we know however, as practitioners, is that it is much easier to engage a child's attention when we direct it towards activities that respond to the needs of a sensitive period - and we have all been witness to the deep concentration that children are capable of - a type of concentration which educationalist and psychologist Csikszentmihalyi in 1988, termed "flow." Flow experiences require effortless action and they are those moments where what we feel, what we wish and what we think are all in harmony. He compares it to what athletes feel when they say they are "in the zone", or to what religious mystics feel when they experience "ecstasy" or to artists who proclaim "aesthetic rapture".

And this is how he goes on to describe these activities:



"Flow tends to occur when a person's skills are fully involved in overcoming a challenge that is just about manageable.... If challenges are too high one gets frustrated...When goals are clear, feedback relevant and challenges and skills are in balance, attention becomes ordered and fully invested. Because of the total demand on psychic energy, a person in flow is completely focused. There is no space in consciousness for distracting thoughts, or irrelevant feelings." [Csikszentmihalyi]

This is what opens the door to development ... hence the incredible emphasis in our work to bring a child to concentration something that is done by awakening an interest. Time, Csikszentmihalyi says, is an essential precursor to developing interest and curiosity, and we are reminded that *"the first step is to develop the habit of doing whatever needs to be done with concentrated attention and with skill rather than inertia."* [Csikszentmihalyi] Concentrated attention and skill, where details assume significance, holds great importance in the work we do with children and in the work that we expect of our children.

This article is an extract from the paper given by Irene Fafalios at the AMI Montessori Centenary Conference in London on July 14th 2007.

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Movement and Learning

Long before modern day research 'discovered' that active movement [as opposed to the passive movement of being pushed in a pram or being placed in a baby-walker] has a significant positive impact on the basic developmental processes the child experiences, Maria Montessori had grasped the importance of that very same relationship. From her observations of children over the first quarter of the last century, she asserted that, '... mental development must be connected with movement and be dependent on it.' And claimed further that, '[the child needs] activity concentrated on some task that requires movement of the hands guided by the intellect.' In other words movement not for movement's sake, but *purposeful* movement.



After the initial 1963 classic study by Held and Hein many more pieces of research began to explore the impact of grasping and also crawling on babies' brain development. These studies found that the more active the infant was in exploring the environment with their hands, the more advanced they were in their ability to perceive object Recent research with monkeys and boundaries. adult humans have also found that we respond to what we can interact with, and once babies reach for objects, we can see that they become capable of interacting with their environment; the earlier they start to reach, the earlier their cognitive abilities mature. This interaction, it was further suggested, also increased their interest in and knowledge of the physical world around them. Furthermore, recent research suggests the importance of goal orientated movement. The assertion made by Angeline Stoll Lillard after having laid bare the evidence in her book is that, 'Purposeful movement appears to be associated with neurological change; mere movement does not.'

Our Task: Helping The Child To Help Himself

The adult's task is to prepare activities for the child that allow him to master the direction of his movements:

When he is just newly born, hang a beautiful mobile that moves gently with any passing current, so that his eyes can track the outlines of the abstract shapes and colours.

When he is a little older, provide low mobiles [a bell attached to a ribbon for example] just within his reach, and just the right size for his small hands, to grasp and to feel the incredible power of 'I can do it by myself!'

When he develops his pincer grip at around 9 months, give him items small enough for him to hold and manipulate as this type of aid will help him use and perfect this new developmental acquisition.

When he is 18 months old, give him practical task that are easy to prepare in the home, for example, washing tomatoes, picking the leaves off radishes, cutting bananas with a 'butter' knife, laying the table, watering the plants, loading the washing machine, un-stacking the dishwasher. Ensure that the challenge is commensurate with his ability; the more experience he receives, the more complex activities he will be able to perform.

The joy in the child is self evident when we watch him perform what to the adult seem like 'chores' around the house. Such practical, meaningful activities help him feel like a responsible and contributing member of the family; little does he know that every opportunity set, allows his intellectual life to flourish in the form of the 'I think and then I do' process.

It is important also that we respect his work as his own, observing and collaborating in what he does rather than doing it for him. We must also be prepared to watch him repeat the activity over and over again for as long as he chooses.

Suggested further reading: Montessori: The Science Behind The Genius - Angeline Stoll Lillard How Babies Think - Alison Gopnick, Andrew Meltzoff and Patricia Kuhl What's Going On In There? - Lise Eliot, PhD Understanding the Human Being - Silvana Montanaro MD The Absorbent Mind by Maria Montessori What You Should Know About Your Child - Maria Montessori The Child in the Family - Maria Montessori



The Conservative Party has decided that Synthetic Phonics, as an approach to learning how to read would be introduced to all schools if they get into government. Based on an independent review carried out by **Sir Jim Rose** on the teaching of early reading in schools across the UK, the review states that Synthetic Phonics is the 'best and most direct route' to becoming skilled at reading and writing and in addition, that an 'active, multi-sensory practice' forms an integral corollary to this approach. What is Synthetic Phonics and how can we be sure that this approach really works?

In The Discovery of the Child, Maria Montessori writes about the way in which children learn to read. In the chapter on 'Written Language' she acknowledges that learning to read and write is the first obstacle at school, and 'the first torment experienced by a man who must subject his own nature to the demands of civilisation.' The common response to this dilemma [in her day and even today] is to delay the problem for as long as possible [at the age of six or seven], in the belief that the child will respond to an analytical approach to the discipline [most commonly referred to as 'Analytical Phonics' where children look at a group of words which all have the same sound in them. They then have to understand that this letter or group of letters make this particular sound and apply this knowledge to other words. Or worse still the practice of 'real reading' where no phonic training is given at all and the child has to learn how to read words by recognition due to monotonous repetition; both these approaches use the 'higher intellectual faculties' when they have not yet been formed!

The disciplines of reading and writing, whilst not being natural have been created by human beings in order to fulfil mental and spiritual needs. With that in mind Montessori devised a language system based on the way in which children naturally acquire their spoken language. This means that the child is able to acquire the required disciplines of writing and reading in a natural way because it is based on the child's natural tendency to explore his own language. Her discoveries led to a startlingly simple approach. In her words, this is what she found,

"...In the first Children's House in San Lorenzo... I had simply given the children exercises in practical living and in training the senses. I had done so because, like all the rest, I was a victim of the prejudice that the teaching of reading and writing should be put off as long as possible and should not be introduced before a child was at least six. But during the months which had elapsed, the children seemed to be asking for some conclusions to the exercises which had already developed their intellects to a surprising degree... They knew how to sweep the floor, dust the furniture... They were able to observe and knew how to recognise objects merely by touching them. A number of the children had come and asked us frankly to teach them how to read and write.'



From their demands and using her previous observations of how children learn, Sandpaper Letters ['active, multi-sensory practice'] were born and from those, the Moveable Alphabet [i.e. 'Synthetic Phonics'].

The Sandpaper Letters are a set of 40 letters cut out from sandpaper, 26 of the sounds are represented by a single letter and 14 of the sounds are represented by more than one letter [e.g. 'ie', 'ou']. The letters are introduced two or three at a time in a game that involves 'feeling' the letter and hearing the sound that it makes so that the child is receiving a multi-sensory input - audio, tactile and visual. The Moveable Alphabet is a set of letters cut out in cardboard or plastic. The child who is unable to either read or write, is able to express himself in a graphic form using the letters. Since he knows the sounds that the symbols represent he is able to synthesise words and write. With this synthetic approach the child effectively writes before he reads which is the opposite to the traditional approach. Children in Montessori schools learn to read with ease at a young age because the materials appeal to the way in which they learn at this age -that is through exploration of their own language using their senses.

Books available through the Montessori Society: Montessori Read and Write; A Parents Guide to Literacy for Children - Lynne Lawrence A Path for the Exploration of Any Language Leading to Writing and Reading - Muriel I Dwyer

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