Montessori on play: What's normal anyway?

by Josh Thompson

a book chapter in

Scholarly Snapshots: The Importance of a Child's Right to Play

Vivien Geneser, editor

Author contact information:

Josh Thompson, Ph.D.

Associate Professor Early Childhood Education

Texas A&M University-Commerce

P.O. Box 3011

Commerce, Texas 75429-3011

josh.thompson@tamuc.edu

903-886-5537 o

214-663-6102 m

Scholarly Snapshots: The Importance of a Child's Right to Play

"A book to summarize the perspective of leading scholars on the subject of play."

Vivien Geneser, editor

Maria Montessori saw the child as she is, acting on her world in a playful spirit. Play, to Montessori, became the avenue for the child to perform her greatest feat, construct the human being. Trained as a physician, Montessori utilized her expertise to 'diagnosis' the 'pathology' of childhood, and prescribe a cure. The problem, turns out, exists not in the child, but in us, in the environment, in the schooling, and in the constant interruption of the flow of development and concentration which the young child brings to her aid and assistance when she plays. And all this Montessori wrote about over a hundred years ago. If only we would listen, if only we could hear.

A true humanist, Montessori believed in the power of the individual, the 'horme' of the soul, a life force that rises up within the human to direct and construct the best version of the Self (Montessori, 1949). This life force often exists below the surface, suppressed by conformity, rules, and schooling. But it exists in all living forms.

A true scientist, Montessori demonstrated the power of work and play, of concentration and focus, on the child's construction of her whole Self (Montessori, 1912/1964). And she replicated her educational experience over and over, first in Italy, and then throughout the world. A future adult version of true Self was definitely the eventual outcome of a childhood well lived, but that final product was not the intent or purpose of childhood. The child has her very being in the present, not in doing something now so the future Self can become a certain way, or perform a specific task, or get this or that kind of job. The child is not a widget being made in a factory nor a blank slate to be written upon. The child is constructing her Self now, in the present, in this very place. Play and work, concentration and focus, are tools with which the child lives, and comes fully alive, in the here and now (Hyde, 2011; Hymes, 1965). This is the very substance of which the ancient wisdom writer speaks: "Unless you become like a little child, you cannot enter the kingdom of heaven" (Matthew 18:3). Montessori's own biographer, E. M. Standing drew the

connection between work and play in Montessori classrooms: 'he loves it, lives it, rejoices in it, perseveres in it, repeats it – *because it is the means by which he is perfecting himself*' (Standing 1962, p. 145; italics original).

And Montessori wrote extensively, superbly, though much of her text is wrapped in profuse obscurity. Patience, and the mindset of the child as the source and revealer of her true nature, work together to provide the reader with ample tools to dig deep, and abide there, in Montessori's own words about work and play:

> Does Nature make a difference between work and play or occupation and rest? Watch the unending activity of the flowing stream or the growing tree. See the breakers of the ocean, the unceasing movements of the earth, the planets, the sun and the stars. All creation is life, movement, work. What about our hearts, our lungs, our bloodstream which work continuously from birth till death? Have they asked for some rest? Not even during sleep are they inactive. What about our mind which works without intermission while we are awake or asleep? (Montessori, 1961, p. 138)

Life with the child in the environment

The elements of playful learning identified by Hirsh-Pasek and others (2008; Fisher, Hirsh-Pasek, Golinkoff, Singer, & Berk, 2010) indicate that Montessori principles align well. "Montessori schools are known for creating classrooms in which children choose from a number of playful, hands-on activities that have been prearranged by adults who serve as guides rather than directors of education. Importantly, the children might not even know that there was a learning goal in mind" (Hirsh-Pasek, Golinkoff, Berk, & Singer, 2008, p. 27).

Montessori prescribed for us a role, not to teach the child, but to assist the enormous internal forces of childhood, and to reduce the impediments to that development. Montessori told us how to get out of the way, how to enter into the world the child is creating through scientific observation. Our role is to observe, not as a passive, uninvolved bystander, but as a collaborator, a co-conspirator in the work the child has undertaken, to be fully human. The work of the teacher (Montessori called us Directors) is less about filling the empty vessel of the child with a pre-scripted curriculum, but more about watching the child. Through astute, trained observation, the Director notes the child's actions, her eyes and focus, her hands and their movement, the motion and energy she brings to her work. The Director must understand how to reduce impediments and increase engagement with the materials.

> An ordinary teacher cannot be transformed into a Montessori teacher, but must be created anew, having rid herself of pedagogical prejudices. The first step is self-preparation of the imagination, for the Montessori teacher has to visualise a child who is not yet there, materially speaking, and must have faith in the child who will reveal himself through work. The different types of deviated children do not shake the faith of this teacher, who sees a different type of child in the spiritual field, and looks confidently for this self to show when attracted by work that interests. She waits for the children to show signs of concentration. (Montessori, 1947, p. 67)

There is a set amount of curriculum in classical Montessori environments (AMS, 2018). These have been crafted through trial and error to optimize the child's engagement and experience in constructing the Self. The pink tower iconically represents the beautiful prepared materials (Figure 1). The direct purpose for sensorial materials in the Primary Class (3, 4, 5, and

6 year olds) focuses on visual discrimination, coordination of gross and fine motor movements, and increasing precision. Indirectly, the child is storing away impressions, what Montessori called *mnemes* (Montessori, 1949), in preparation for future understanding of cubed roots in algebra. The smallest cube is 1cm high by 1 cm long by 1 cm wide. The successive cubes increase in volume proportionally until the largest is 10 cm by 10 cm by 10cm, cubed. This experiential encounter with the Base 10 number system is then replicated throughout the classroom, as it is that, among all the numeration and counting systems, this one is the most prolific in our human culture. Montessori designed these scientifically prepared lessons with the intent of providing specialized experience with abstract concepts that later would be activated through labels and language, with explicit detail. But for now, during the sensorial period of development, the child need only encounter, manipulate, visually discriminate, and return the material to the shelf for future use. The prominence of the constructed tower in its place in the classroom becomes a beacon, a lighthouse, calling out to the child, “Remember when …”, and evoking in the child, “Come again …”, the future dimensions of study and understanding yet to be explored. The control of error is inherent in the work. It doesn’t take a teacher with a red pen to mark upon the child’s work, either in the affirmative or negative, that the child has succeeded in all the dimensions of this task. The child is doing the work, and able to evaluate the results within her own schema. Of course, the trained observer may comment on points of perfection, drawing the child’s attention to the finer details of work. But it is not the adult who is the arbiter of success but the child herself.

> This is education, understood as a help to life; an education from birth, which feeds a peaceful revolution and unites all in a common aim, attracting them as to a single centre. Mothers, fathers, politicians: all must combine in their

> respect and help for this delicate work of formation, which the little child carries on in the depth of a profound psychological mystery, under the tutelage of an inner guide. This is the bright new hope for mankind. (Montessori, 1949, p. 15)

Integration

The domains of development exist within the whole child. Montessori's approach to work and play integrates the whole of development, aiming with precision at each explicit domain as if that realm were the only one in play, but always in context of the whole of development. This persistent attention to the integration of faculties highlights her genius, wrought through scientific observation. She noticed the child craves intense concentration, and will act out if impeded or distracted from that deep level of engagement.

> We ourselves have lost this deep and vital sensitiveness, and in the presence of children in whom we see it reviving, we feel as if we were watching a mystery being unfolded. It shows itself in the delicate act of free choice, which a teacher untrained in observation can trample on before she even discerns it, much as an elephant tramples the budding flower about to blossom in its path.
>
> The child whose attention has once been held by a chosen object, while he concentrates his whole self on the repetition of the exercise, is a delivered soul in the sense of the spiritual safety of which we speak. From this moment there is no need to worry about him - except to prepare an environment which satisfies his needs, and to remove obstacles which may bar his way to perfection. (Montessori, 1949, p. 248)

The work is connecting the whole child, spirit, soul, mind, and strength, through integration of these emerging faculties. The child's use of the hand, to touch and feel, to stroke and discriminate, to move and manipulate objects, is in fact moving his brain. He sees objects and perceives Self in the interaction and manipulation. Only recently has brain research demonstrated what Montessori discovered about the work of the hand on the construction of the brain. Patricia Kuhl, University of Washington, describes many facets of brain development discovered under the magnetoencephalography (MEG) machine, which provides real-time functional images of the brain activity (2010). The coordination of the primary motor cortex and Broca's area typically governing speech indicates that the infant child anticipates speech, evokes it even from responsive caregivers. This initiation of playful learning in the very young child was recognized and accounted for in Montessori's design of meaningful learning environments. She planned for choice, initiation, and concentration in her classrooms and through intense training of directors in the arts and skills of focused observation. She wrote, "…the entire Montessori method is based on the spontaneous activity of the child which is aroused precisely by the interest the child takes in the material" (Montessori, 1995, p. 14).

Angeline Lillard further explores this dimension of playful learning. She aligns principles of playful learning with Montessori ideals. Seven dimensions align between the two: both provide overall structure, involve objects and lessons, collaboration with peers is possible, intrinsic motivation is cultivated, and fun is involved. For purposes here, the principle of free choice needs deliberation to better understand how the Montessori theory promotes playful learning.

With playful learning, children's own interests drive the agenda. An adult provides the activities and objects and guides the children's engagement with the materials, but an aura

> of free choice pervades. Important to this aura in playful learning, no one forces children to engage if they choose not to do so. If children choose to engage in some way other than expected, the adult follows the children's lead and tries imperceptibly to return the youngsters to the learning agenda. Choice in Montessori education varies by level. Free choice exists at the macro-level of classroom environment: most of the time, most Montessori students choose what they work on. A child might decide to iron napkins, cut carrots and offer them around the classroom, wash a table, or take apart and put back together a puzzle map of Europe. … at the more micro-level of exercises within the environment, Montessori education offers less freedom (Lillard, 2013, pp. 165-166).

Four planes of development

In 1939, Montessori formalized her perspective on a stage theory of development. She recognized four planes of development, in six year segments, each with a dominant force or compelling developmental urge with which the child approached all learning and play (Figure 2; Grazzini, 1994; Montessori, 1938). The stages of increasing independence are categorized by plane (age) and salient feature: early childhood: physical and psychological independence; middle childhood: mental independence; adolescence: social independence; and emerging maturity: spiritual and moral independence. This view of the child establishes a value for each plane, and proscribes how best to promote education within each. Because of her training in anthropology (Montessori, 1913), she sought what Kenneth Pike (1967) later labeled an emic/etic perspective, documenting the internal (emic) nature of childhood through objective, scientific (etic) observations.

This insider emic view of the child transformed the educational model to focus on salient features of each developmental plane. This age-specific purview became even more significant with Montessori's exploration of Sensitive Periods.

> The Four Planes, then, is only a framework, and yet, at the same time, it is extremely important precisely because it is Montessori's overall view of development: the development of the individual from birth (or even before birth) right through to maturity. This vision of the whole of development provides, we could say, a *holistic* view of the developing human being, and it explains and justifies the constant Montessori idea of the importance of education as a "help to life" (Grazzini, 1994, pp. 27-28).

The four planes of development create a map of opportunities for play at different ages and stages revealing different opportunities for children to practice their play (Figure 2). In the first plane of development she experiences a tremendous explosion of sensory knowledge of her world. She is compelled to touch, to feel small objects, and engage in the physical objects around her. The miniature objects that fascinate her are manipulated by fingers, first in a palmar grasp and then in a pincer grip, all in a playful spirit to know these objects and their relation to her and to each other. To consider the ability, the drive even, to know something in more than one way, Montessori used the term *stereognostic* to identify and signify how important the multiple means of knowing something, such as through the use of action. Studies of various features and attributes of objects leads the child in sorting through objects of different size and different patterns as a way to learn and master themselves in their environment.

The elementary age child is occupied by intellectual development. The academic part of the intellectual life revels in the first three years of elementary age schooling as learning to read

and the second three years is a study in reading to learn. So, also, this academic pursuit of the elementary child is acquiring new skills in pursuit of problem-solving, cognition, dealing with and manipulating ideas in much the same way that the young child is manipulating small objects.

The adolescent in Montessori's view is dealing with many different changes accompanying the birth of the adult. The onset of puberty creates a new life within this human that is being transformed by deep awakening. While the elementary child is social in a gang or club or pack, this adolescent is ready for truly optimal development within the social personality. As she examines the combination of distinctive features of the individual's membership within the group, so the social personality becomes the object of development for this plane. Just as the young child moves objects in order to know them and herself, and intellectual ideas are the objects being manipulated by the elementary age child, so it is the adolescent's social relationships become these objects of interest and manipulation as she maneuvers to find her place within the world and find out how the world has its place on her.

In the final plane, the young adult 18 to 24 years old, Montessori recognizes the focus of development shifts to the will. The young adult is consumed with making life choices. Choosing a life partner often happens within this plane. Choosing a career and a lifestyle to match their career becomes the object, the primary focus of young adults. Choosing career and life goals becomes a fascination not dissimilar to the young child's all-consuming interest in small objects. Each one is manipulated, played with, experimented upon, to watch each one go into line with the personal lifestyle goals.

The four planes of development have a pattern that centers around a playful engagement with objects in such a way that the full human potential is realized and recognized and comes to grips with the development of a fully normalized human being.

The Prepared Environment

Montessori identified the prepared environment as one of the three essential parts of instructional strategies, the second being the teacher/director, and the third being the class membership in community (Montessori, 1949). But the prepared environment is what Montessori described as the first important foundational piece that the director creates. The work of the adult establishes and creates the framework space for the learner to grow and explore, and learn to control her movements. The work of the adult is to plan the physical layout of space and also the emotional and spiritual preparation of the classroom climate. The work of the adult is to bring insight and forethought into the preparation of the space, so that the child's unconscious drives and impetuses may be free to explore, encounter, engage, and learn freely through play.

The work of the prepared environment is to replicate a pattern within us all of a perfect place. Many different ancient traditions and scriptures describe a holy and a sacred space, sometimes known as heaven on earth, sometimes known as The Garden, sometimes known as the green meadow. Such knowledge of a space out of this world creates within the child and the adult and the community a sense of passion for the way things should be. One of the strong dominant forces in the very young child's sense of play within their environment is seeking to find the order and sequence and the proper means of conduct within a certain environment, recognizing how very different those spaces and rules of engagement are from one environment to another. The work of the adult is to consider the role of the garden in the child's quest for order and meaning making.

Montessori classrooms optimally have large numbers of children in a mixed age group because Montessori recognizes that these children work with and learn from each other. The

director's role is to prepare for movement within the large space. Montessori classrooms are often quite clean and sterile, compared to many other early childhood environments. This is not for lack of imagination, but it has instead purpose in guiding the child to move within the space and create meaning out of action rather than an artificial color or an animal decoration on the wall.

The passion to move that is built within the child is identified as the first of nine principles of Montessori education in the first (2005) and now a third edition (2016) of Angeline Lillard's book, *Montessori: The science behind the genius* (see Table 1). Children's passion to move relates to their deep desire to know. The prepared environment creates the beautiful pattern for learning that matches the child's need to move. Both large muscle, gross motor locomotion opportunities and also fine motor haptic sense of touch activities promote the child's passion to knowing something in multiple ways.

1. Movement & Cognition
2. Choice
3. Executive Function
4. Interest
5. Extrinsic rewards are avoided
6. Learning with & from peers
7. Learning in context
8. Teacher ways & child ways
9. Order in environment & mind

Table 1: Nine principles of Montessori education (Lillard, 2016).

The second principle for Montessori education is that children need choice. The prepared environment organizes the movement of that choice and provides an expectation and anticipation that the child chooses as his passion and interests grow. She wants to do things within her classroom. The adult anticipates that and the child comes to expect that "school is known as a place of research, learning, revisiting, reconsiderations, and reflection" (Thompson, 2003, p. 19).

The prepared environment also needs to evolve as a structure or skeleton. The framework exists even as items morph with the child's emerging interests and different designs. Sometimes it may be expressed around the animals that are welcomed into the group space for the child to play with and care for. Sometimes it is experienced instead around artistic expression in visual arts, or music, or dancing. Sometimes it is within the social fabric of communication in conversation. Very often it is in the individual engaged in isolated work, sometimes the daily tasks of sweeping and cleaning, sometimes within the new tasks of studying a bird's wing. Possibly, the emerging interests match the child's fascination with their own emerging executive function, being able to identify what it is that she can do and what she can't, how she can control an impulse and generate passion around her chosen objects. The emergence of this executive function demands an enormous exploration of her prepared environment, her safe space within which she can try the limits and observe the consequences.

Integrating choice and purpose around the child's experience of the prepared environment recognizes the third item in Lillard's nine principles of Montessori education. The role of executive function resides in promoting play within the prepared environment, that meaningful concentration and focus that comes about from choice and from interests and from a sense of joy in her work. The adult provides the safe space of the prepared environment, the physical security as well as the emotional and spiritual clarity. Having that secure foundation

affords the wise direction to create provocations and challenges to expand the child's work. This prompt facilitates the child seeking to excel in mastering her environment through play.

Finally, the work of the adult in promoting play within the prepared environment is to provide community space. The young child needs community. She longs for relationship and seeks order in playing with others. The work of the adult in promoting play in the prepared environment is to provide a community space, to organize the routines and rituals, the procedures and protocols with which we engage one another. The Montessori lessons of Social Grace and Courtesy are useful in creating a social fabric with which the child can relate. Through these known and familiar scripts, she can connect with and move the relationships in her prepared social environment, and manipulate them even as she continues to explore moving and manipulating small objects.

Many Montessori environments contain a Peace Table or a safe space or quiet corner, often included as one of the many choices the young child can make throughout the day. Sometimes she goes there alone, perhaps to take a book into this quiet space, or maybe the child needs to go there with a friend just to talk quietly. Sometimes there is a low sofa or love seat that provides a space for two friends to sit together side by side for a moment of repose or recollection. Or possibly two or more children need to go to the quiet space together to reconcile, to discuss their differences here and listen, truly listen to one another. One type of Peace Table uses a talking stick or other object that one child holds as she expresses her concerns and then she passes object to the next child and listens while that child speaks. A variation of this uses a whiffle ball, the type of plastic ball that is empty at the core and has many holes. It is light and airy to travel gently through the air. The acronym W.I.F.L. stands for 'What I Feel Like' and helps children articulate otherwise unspoken and unacknowledged emotions.

These objects of play within the prepared environment are very much a Montessori trademark, a hallmark. This also carries over to the outdoor environment. This space, too, must be planned and prepared along the same principles. The work of the adult and the expectations of the young child merge here as they integrate movement and choice, interest and the budding executive function, all to create a harmony within the playful child.

What's normal anyway? The child as leader in play

With the end in sight, the fulfillment of her childish dreams and aspirations for total independence, the young child immerses herself in her work. The Montessori classroom, looking all stark and bare, doesn't appear to be 'fun' or 'entertaining'. Yet, the child here engages herself playfully in 'work' that feeds her soul's craving, satisfies her highest need, to become her true Self. Dorer (2018) lists four goals for the primary aged (3-6 years old) as matched with the Practical Life materials:

> It is important to emphasize that Practical Life, while it appears to focus on a variety of skills, actually has just 4 essential goals. Those goals are:
>
> - the development and refinement of a *sense of order*,
> - the encouragement and growth of *concentration*,
> - *coordination of movement* involving both large and small muscles, and
> - most important to this discussion, the development of *independence* (p. 42, emphasis original).

This work of independence comes down to the concept, to paraphrase Montessori – "If I've done my job right, the children don't need me."

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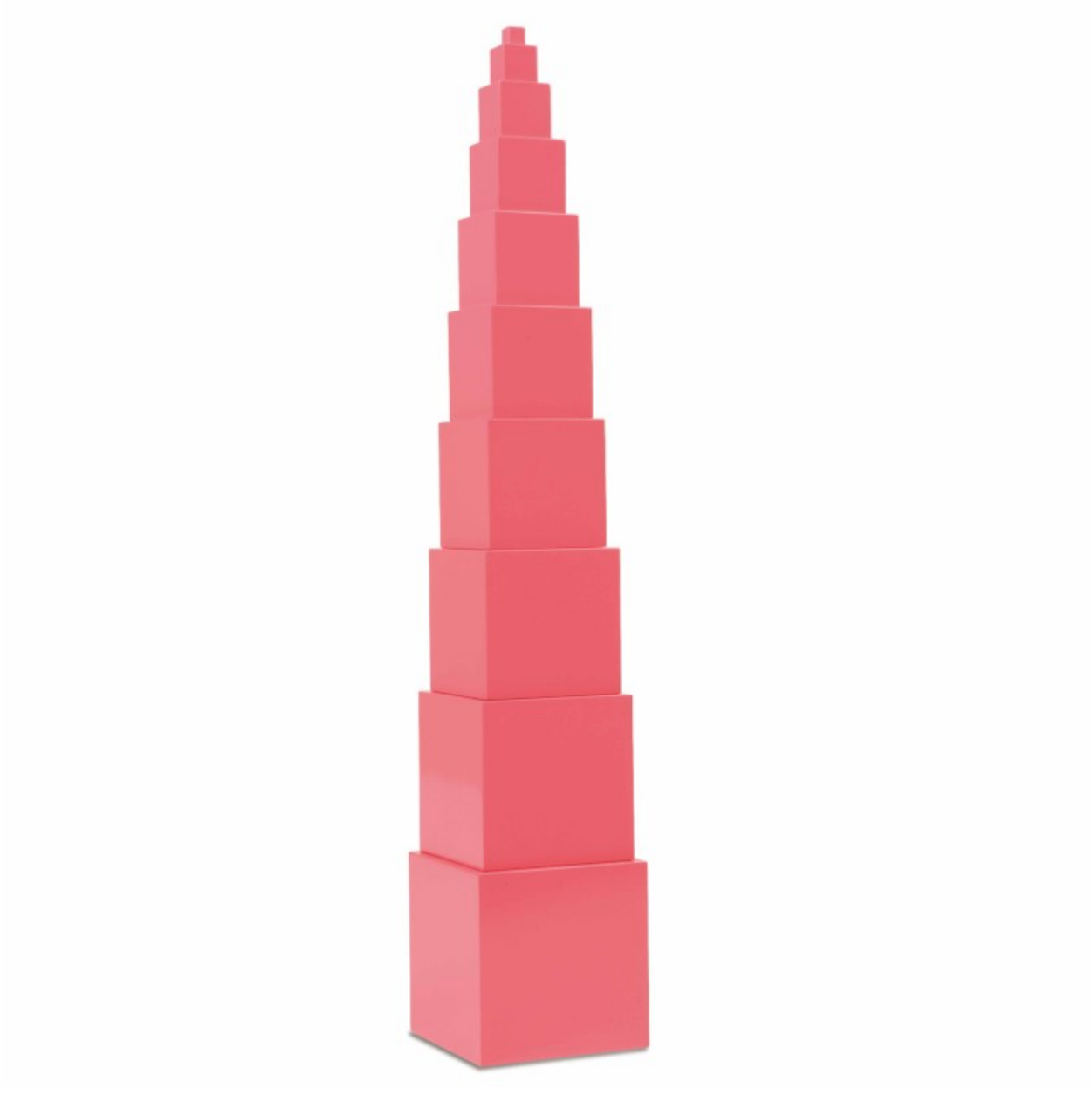

Figure 1: Pink Tower (photo courtesy of Nienhuis)

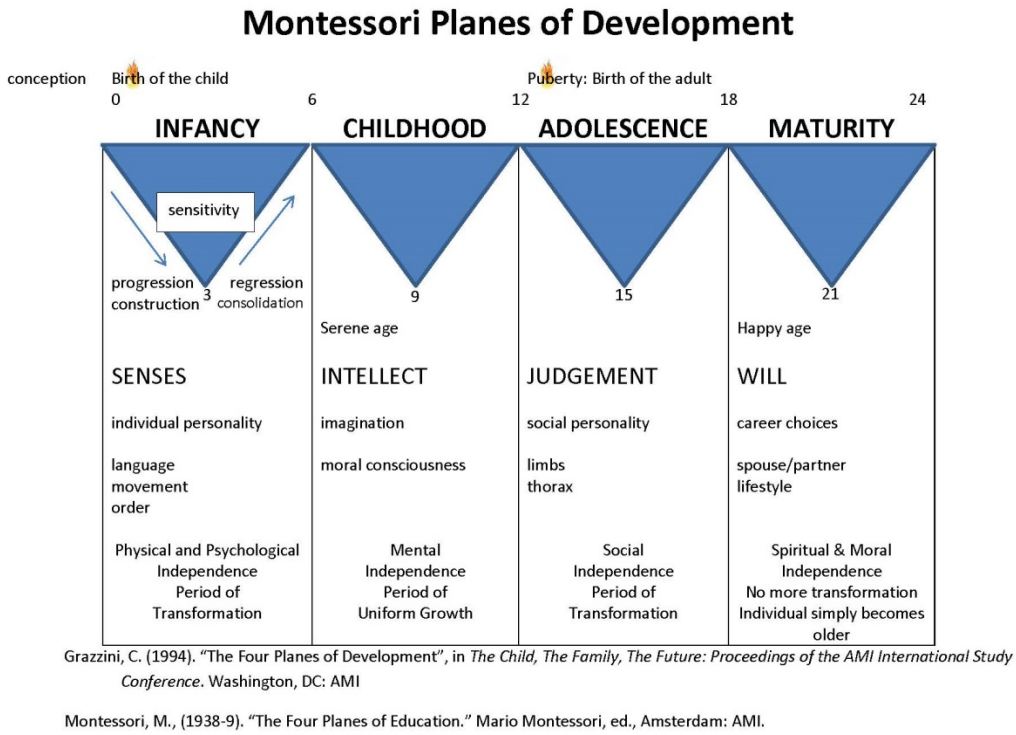

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Figure 2: Montessori Planes of Development (1938)