
Imitation as the Foundation of Learning

~ Sharifa Oppenheimer

“We educate the young child only when we base all education and child rearing on the principle of imitation... Up to the change of teeth, a child learns everything through imitation.”

~ Rudolf Steiner

The principle of imitation has been at the root of our work in Waldorf Early Childhood Education since its inception. Imitation is the inherent way all normally developing babies and children begin the journey of learning. It is nature’s way, and is built up into a system of brain structures that make this gift of imitation possible (Rumiati, 2009).

In this twenty-first century world, where access to a deluge of information on any subject is at our fingertips, where the cognitive mind is exalted above innate body-knowing, why is imitation still important? How can such a non-conceptual way of knowing have relevance, and why is imitation still at the center of our work with young children? Let’s look deeply into these questions so we educators can, in full understanding, affirm the primacy of imitation. In this way we can enhance its efficacy in the classroom and help parents also learn to work within imitation’s golden circle.

Why is imitation still important?

The Journal of Neurodevelopmental Disorders considers imitation skills to be crucial in the early years. “Imitation skills play a critical role in early development and are considered an essential component of social and cognitive development during the first years of life. Indeed, during the two first years of life, children gradually increase their imitative behaviors both in frequency and complexity, along with the development of their cognitive and social abilities. Children imitate their siblings, peers, and parents at every moment to learn new abilities. Imitation is an essential lever for learning of new motor skills and cognitive skills. Besides the role in learning, imitation has an important social function. From the earliest moments, caregivers and infants engage in reciprocal imitation during face-to-face

interactions. Through this choreography of imitating each other’s vocalizations and facial expressions, they will share social interest and affective states, take turns, and build a foundation for the development of complex social skills. Indeed, the literature has amply demonstrated that imitation plays a vital role in the development of social communication” (Pittet, 2022). This is the opening paragraph of a lengthy article that proceeds to describe the monumental difficulty children with autism face due to the inability to imitate. Much attention is focused on ways to help these children learn the art of imitation. This speaks volumes to the necessity of imitation.

There are numerous ways to define and understand imitation. We will begin our definition of imitation with the idea that the child “follows the parents with love” and explore the way the unborn child is held within the bio-chemical and electromagnetic field of the pregnant mother (Agarwal, 2023). Two other primary and yet rivaling definitions of imitation also prevail; we can think of them as Nature versus Nurture (Farmer, 2018). The Nativist view sees imitation as an evolutionary development of specific regions of the brain. This train of thought is the “Nature” side of the coin: we imitate because we are hard-wired this way. The Associative Learning theory posits that postnatal learning forges the visual-motor links that support imitation. Here we see the Nurture argument: we imitate because we learn from human and environmental cues how to reproduce what we have seen.

In this exploration of imitation, we will look at a hybrid explanation. We will see how these various learning modalities cooperate and perhaps form a developmental sequence for the human imitative capacity in general.

The biological roots of imitation

The child's brain development in utero occurs at a speed like no other time in life. This rapid growth is accompanied by both great potential and vulnerability. For it is the emotional state of the pregnant mother that, to a large degree, determines the neuro-development of the child (van Den Huevel, 2022). Healthy and happy mothers birth healthy and happy babies (Negussie, 2019). On the other hand, mothers living with stress, violence, malnutrition or ill health tend to birth babies that are pre-term and low birth weight, which can progress later to child behavioral and mental health issues (van Den Huevel, 2022). The fetus learns much in utero: interesting preferences such as liking the music the mother listens to, or preferring her smell to others, or even having familiarity with the taste of the foods she eats (Mennella, 2001). The unborn baby also "learns" and reproduces her mother's biochemistry, emotional states, and response patterns. We can think of this deep mother-child connection as growing the roots of imitation.

After babies are born, they continue to "match" their mother's brainwave patterns: mothers and babies' brains form a single network. Their brains form a "megaweb" in which their brainwaves align. This creates deeper connectivity and empathy; they feel-into each other's state of being and respond accordingly. Yet, this primary connection, this biological imitation, is dependent upon the mother's emotional state. When the mother is well cared-for and healthy, her emotional state tends to be positive. This happiness strengthens hers and baby's brain-to-brain synchrony (Santamaria, 2019).

Not only are the baby and mother's brainwaves synchronized, their hearts also beat as one. This entrainment of the mother and child's heartbeat is enhanced and magnified when the mother turns her whole attention toward the baby. "The heartbeat signal was not always detectable, but it was clearly detectable when the mother tuned-in to her baby. It appears that when the mother places her attention on the baby, that she becomes more sensitive to the subtle electromagnetic signals generated by the infant's heart" (HeartMath Institute, 2008). In fact, studies show that even among adults, when one person's electromagnetic field is stable and coherent, this stability can "call" to another person and help to stabilize and bring their heart rhythms into synchrony (McCraty, 2015). Imagine the potency of

this synchronization between mother and child. This powerful connection can eventually grow to include the father and others within its golden circle (Univ. of Essex, 2024).

Parents, caregivers and teachers can experience the profound power of this heart-stabilization when we attend to our own groundedness and emotional stability, then step toward the child with love. We breathe steadily, listen, and hold the child in this field of love, or our "positive affective state matching" (Morgan, 2023). We can then perceive sensitive responses and actions. Perhaps this is what Rudolf Steiner meant when he said the adult must strive to be worthy of the child's imitation. Science shows us many ways in which the child imitates us "from the inside out," and Steiner encourages us to attend to our own inner work.

As the child grows, this deep bio-psycho-physiological imitation continues, remaining as a root system. The parent or teacher has created a strong foundation by establishing this child-adult brain and heart synchrony, as the adult "leads" by her own inner stability. We can think of the above as the *Nature* aspect of imitation.

"Children learn to imitate by being imitated."

(Markus Paulus, Ludwig-Maximilians University, Munich)

Let's now consider the *Nurture* aspect of imitation, or social imitation. The Center on the Developing Child at Harvard University has researched imitation and the best ways to help educators and parents of young children encourage it. They have codified their discoveries and call this type of parental response "Serve and Return." At its core, Serve and Return is about responsive interactions between children and the people who care for them, and how those interactions help children grow and reach their full potential. They have created a tutorial for parents, called "Five Steps for Brain-Building Serve and Return." This helps parents to understand simple ways to nurture the imitative capacity of young children and to respond in positive health-giving ways (CDC, Harvard Univ.).

Simply put, step one is to notice where the baby, toddler or child's attention is focused. This is the "serve." The caregiver imitates the child's attention by turning their own attention in the same direction; they "return" by affirming the child's focus. The adult then adds language by naming, or commenting. They

then wait for the baby's reply. The ball of conversation is passed back and forth until the child's attention moves elsewhere. Social learning is enriched by this warm exchange, as the child learns to imitate passing the ball of attention back and forth with another. These steps toward "matching attention" can be practiced with a very young baby and even continue through an entire childhood.

On countless occasions we caregivers model self-regulation for the young child. Over time the child internalizes this process and begins to imitate the art of emotional self-regulation (Ibid.). When the child joins an early childhood class, the teacher now models for the children the intricate human experience of self-regulation within a circle of others: classmates and teachers. Teachers may continue to rely on the deep imitation of heart-entrainment by bringing a dysregulated child into our heart-field; we put an arm around them or hold them on our lap and hum a bit (Flowly Resources). We can add simple, steady words, to help connect the higher language centers of the brain to the impulse-related sensory motor system. The teacher encourages "We can use our words. Let's say 'I would like a turn with the bucket.'" This modeling and the child's power of imitation grow in time. Adults play a critical role in showing the child pro-social behaviors they can imitate, to diffuse emotionally charged situations (Clegg, 2017).

These roots of imitation create a strong scaffolding for other kinds of imitative learning, beyond the intricacies of social dynamics (Ibid.). The child in the early childhood classroom learns many functional skills, and these too, are learned best by imitation. She learns how to hang her coat on the correct hook, how to take her basket of crayons to the cupboard, how to squeeze the sponge before washing the snack table, how to hold the dustpan as her friend sweeps the crumbs. She also learns how to construct a cozy "house" with cloths and clothespins, how to make a fairy house outdoors, how to balance on a log, how to hop from stump to stump. Each year in the classroom brings more skills, particularly creative skills. Eventually, after seeing a puppet play by the teacher, the five- and six-year-olds may imitate the entire process: create a story, gather equipment for the story's set, and perform their own puppet play.

Imitation now, direct instruction later

The strong foundation in imitation laid in the early years gives the child a great advantage to continue to

learn by observation. Research affirms the principle of imitation over direct instruction. "Indeed, children are more likely to imitate the same ritualistic actions when the actions are presented as group conventions, such as 'this is how we do it' rather than as instrumental goals: 'First we gather the beads, then we choose the needle and thread, then we knot the thread and begin to string the necklace'" (Liberman, 2018).

Let's explore typical activities in the early childhood classroom in the light of imitation. We can use the lens of "formed activities" as compared to free activities. Formed activities are those that the teacher brings to the children with a conscious intent of "teaching" through imitation. Free activities are those that the children engage in during their creative play. We will often see the formed activities we have offered sprout up in their free creative play.

The following is excerpted from my book *With Stars in Their Eyes: Brain Science and Your Child's Journey Toward the Self* (SteinerBooks, 2019).

Let's examine what we will call "formed movement" accompanied by "formed speech." Young children, especially in the stages before verbal language develops, depend primarily upon gesture to convey their needs, moods, curiosities, preferences and affections. We can speak to them through movement first, with speech following as a support. We offer nodal times during the day in which together we attend to the primordial language of movement and introduce the elegant speech of rhythmic and rhymed language. Out of the inborn capacity for imitation, they will not only follow the gestures we model, they will play with the language as well as also follow the soul-mood we portray.

Throughout the day we can bring formed movement, attended by rhythmic speech, to the children in the small rituals we practice. Let's bring them finger games and hand movements full of archetypal gestures; these enhance our mealtime graces and bedtime prayers. As movement developmentally precedes speech, let's remember that gesture is primary. The fact that gesture is attended by our rhythmic formed language, though, scaffolds for their unfolding capacity of language acquisition. We can use nursery rhymes and finger plays at transition times, such as while we move from creative play toward nap time, or from outdoors to snack time. Remember, these movements and gestures are offered by *simple modeling, not by instruction* or required participation. We give them not only the

gestures and musical speech, but also our genuine delight in them; this is an irresistible combination.

Let's be aware of the health-giving aspects of formed movement, and the cognitive scaffolding of formed speech. The child has the opportunity, through the joy of imitation, to imbue physical activity with the delight of imagination. In the classroom there are many ways to offer these "living pictures." Not only at transition times, meal and nap times, but also at the all-important circle time. I feel that circle time is the heart of the Waldorf Early Childhood classroom's rhythm. It is full of song, poetry, movement, traditional singing games and finger games. The children are bathed in these living images, and they move through the "stories" told in this lively way, as a school of fish move as one being. Story time, as well, offers the child the opportunity to not only imitate certain story lines or character, in their creative play, but to build upon these imitations and add variations on a theme."

Imitation is, indeed, still the foundation of learning. Seeds are sown as the unborn child is held within the biochemical and electromagnetic field of the pregnant mother. This deep connection creates a strong foundation for the baby and toddler. The social-emotional grounding — serve and return — learned in synchrony with attentive parents and caregivers creates a dependable scaffolding. When the young child joins a classroom situation, they bring this foundation to the development of other forms of imitative learning, such as functional imitation and language acquisition through imitation. Teachers, caregivers and parents can be crucial agents to enhance this natural learning sequence. For the magic of imitation is here to stay! ♦

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