

Movement, Intelligence and Independence

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Children are born with the innate drive to become independent. This unconscious life force called hormone drives the child to incarnate or develop himself.¹ From the moment he is born the child uses his senses to understand his environment. It is through the sensory input that the synapses in the brain multiply and actually build the child's mind. To fully engage with his environment, to acquire the necessary sensory input, the child must be free to move. "Only through freedom and environmental experience is it practically possible for human development to occur."²

It is man alone among all the animals that walks on two legs, thus freeing his hands to do what only man can do, use his mind to make free choices to work and create. Indeed, it is through the acquisition and refinement of his movements that man develops himself. "... (M)ovement has great importance in mental development itself, provided that the action which occurs is connected with the mental activity going on."³

The young child's development of movement occurs on two tracts simultaneously; that of equilibrium and walking, and that of the hand.

All development is cephalocaudal, that is, from the top down. Thus for equilibrium and walking the control of

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the head that comes first. By seven weeks he can hold his head erect when upright and by about two-five months the child can hold his head steady when he is upright.⁴

By six months, he can sit by himself.⁵ This is an extremely important milestone because for the first time he no longer needs his hands to prop up his body. The hands now are free for exploration while he takes in

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his environment from a new point of view, that of his body in an upright position. He cannot as yet get to the objects of his desire, but if they are brought to him, he can fully explore them with both his hands.

Next, he begins to move his lower body. The calcification in the bones of the legs occurs around six months.⁶ By about eight-five months he pulls himself to standing and in another month he can also sit down!⁷ And by nine months he begins to crawl.⁸

But it is the next phase that truly welcomes him into the family of man. He can walk upright. This occurs somewhere between twelve and fifteen months.⁹ Now, he truly is independent to seek out the world. He can motor on over to any and all objects of his interest. And everything is of interest to him.

The development of the hand occurs consistent with the proprioceptive growth of the body, that is from the inside out. Thus, he can elevate his chest (at two months) before he can grasp a one inch cube (at three to seven months).¹⁰

At first, the hand movements will be uncoordinated and seemingly disassociated from his body. Indeed, he doesn't even know he has hands till he intentionally

grasps objects at about six months.¹¹ Prior to that he may instinctively grasp objects, such as the palmer grasp reflex where the hand closes around the adult's finger.¹² He may study his hand or unintentionally grasp something.¹³ However, once he can choose to grasp objects, his mind can command his body to do his will.

Movement requires the coordination of the brain, the senses and the muscles.¹⁴ It is through movement that the child develops his intelligence and gains his independence.

End Notes

1. Montessori, Maria. *The Absorbent Mind* (New York: Holt, Rinehart and Winston, 1967) 83.
2. Ibid 90.
3. Ibid 142.
4. Rosenblith and Sims-Knight. "Bayley Infant Development Tests" 1985.
5. Montessori, 149.
6. Sue Kennedy, "Infant Physical Development", Montessori Education Center of the Rockies Lecture, Boulder, 29 June, 1998.
7. Rosenblith.
8. Devine, Monica, *Baby Talk: The Art of Communicating with Infants and Toddlers* (New York: Plenum Press, 1991.)

9. Montessori, 149.
10. Rosenblith.
11. Montessori, 149.
12. Kennedy.
13. Montessori, 149.
14. Ibid 136.

Works Cited

- Devine, Monica. *Baby Talk: The Art of Communicating with Infants and Toddlers*. New York: Plenum Press, 1991.
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