

Few of us pay much attention as to how many of history's inventions have, over time, influenced the development of our bodies and brains. Dr. M. Nicoletis, at the Center for Neuroengineering, Duke U. tells us that "Every time we use a tool to interact with our environment, such as a computer mouse, car, glasses, (...and alphabets) our brain assimilates properties of the tool onto neuronal space. Tools are appendages which are incorporated into our body schema. As we develop new tools we reshape our brain."
- Dr. Miguel Nicoletis, NYT, Oct. 13, 2003. Moved by Thought

...our brain is likely changing its internal image of our bodies to incorporate the tools as extensions of ourselves," said Nicoletis
http://www.eurekalert.org/pub_releases/2013-08/dumc-tam082313.php

How Fine-motor Alphabet Tools Reengineer Children's Brain-Body Communication Systems

<p><u>Over dependency on fine-motor alphabet tools entrains more sedentary* life styles which can:</u></p> <ul style="list-style-type: none"> Cumulatively reduce the body's need to move to communicate Decrease body strength, agility and range of motion in gravity Reframe capacity to interpret gestural & pictorial language 	<p><u>Alphabet tool dependency entrains fine-motor learning habits which can:</u></p> <ul style="list-style-type: none"> Alter the way sensitive audio-visual learning systems adapt in technologically expanding environments Premature myelinate neuromuscular pathways that shift learning away from the young child's need for gross motor play behaviors 	<p><u>Alphabet tool dependency fosters decline in gross motor linked intelligence which can:</u></p> <ul style="list-style-type: none"> Weaken vital gross motor signal transductions between a body and its brain. Recalibrate synaptic thresholds, transmissions, co-responding behaviors and memories Reduce peripheral IQ 	<p><u>In hindsight, an imbalanced dependency on fine-motor alphabet tools may have inadvertently lead to:</u></p> <ul style="list-style-type: none"> Disembodied cognition; isolation; declines in touch, sensory-motor integration and time perception; altered forms of social connection, capacities to engage, detect truth, to trust, to feel happier, resilient, grounded, and safe in gravity-imposed environments. Algorithmic brain mapping; potential myopic thought
<p>Alphabet Fitness reincorporates the actions of the physical body back into coded language</p>			
<ul style="list-style-type: none"> Decrease natural bi-lateral play and body-brain agility Alter proprioceptive awareness, eye-mouth-ear-hand-foot motor coordinates, and lip reading awareness Re-choreograph whole brain hemispheric integration and motor-mapped memory 	<ul style="list-style-type: none"> Foster ocular lock a trance like state of disassociated hearing that weakens connections between words and pictures (triggers reorientation in time and space) Alter evolution's use of mirror imaging/motor mimicking, and alpha-beta waves 	<ul style="list-style-type: none"> Pre-pair memory to rely on more stress susceptible and distractible learning modalities Set the stage for alphabet centered communication disorders and how brains and bodies socially, behaviorally mature 	<ul style="list-style-type: none"> Over the long term, an ongoing shift in the use of the body's muscles from predominantly gross motor to fine motor dependent tools, or vice versa, can re-design a species.
<ul style="list-style-type: none"> Reduce the body's natural ability to sweat; to release toxic muscle tension and emotional stress through gross motor activities Alter pheromone output 	<ul style="list-style-type: none"> Foster invisible, internal mental chatter that competes with external input and receptivity Diminish ability for the brain to calibrate and respond with validity 	<ul style="list-style-type: none"> Make learning dependent on rote memorization, encrypted words, and digitization vs physically enacted, bodily participations <p>(Decoding alters reaction time)</p>	<p>Unknowable dis-orders and diseases, as well as potential new forms of health and wellbeing, unfold as the repetitive use of man's tools reengineer the relationship between bodies and their brains.</p>
<ul style="list-style-type: none"> Alter biorhythms, respiratory O₂-CO₂ ratios, circulation, chemistry, energies, weight, bone strength, and sleep states <p>The changing landscape of language</p>	<ul style="list-style-type: none"> Foster repetitive, addictive like behaviors due to a lack of integrated sensory-motor related experiences and stimulations 	<ul style="list-style-type: none"> Enable the ease & speed of word repetitions to generate automaticity of response Reduce ability to think on one's feet; to self-regulate 	<p>Note: This chart is meant to stimulate awareness of need for educated movement.</p> <p><u>Words carry weight.</u></p> <p>Not to be used in lieu of medical consultation & treatments</p>

**"The body adapts so well to an increasingly motionless environment that it redesigns itself to cope with the lack of stimulus." - Peter Egoscue*

In summary:

- The type and amount of the child's motor activity experienced while learning language becomes linked to that child's mental, physical, social and emotional ability to communicate through language.
- Over time, the ease of fine-moto, audio-visually trained alphabet communications contributed to a decline in the amounts of daily activities required to foster cohesive, vital body-brain systems.
- Offering action-linked alphabet education promotes gross-motor associated learning experiences; conditions gross-motor associations to language; and offers a unprecedented opportunity to maintain cross-brain hemispheric connectivity while learning the sounds and images of the alphabet.