



Lev Vygotsky, Russian Psychologist, 1896-1934

Vygotsky died at the young age of 38, yet during his ten years of active work, he was incredibly productive and innovative in his hypotheses. Following his death and due to the cultural environment at the time, his writings remained with his close collaborators and followers. Consequently, to a large degree, the world did not “rediscover” Vygotsky until the 1990s when a six-volume set of his work was translated and published in English. The fact that modern day scientists have embraced Vygotsky’s hypotheses and lines of thought more than seventy years after his death is testament to just how far ahead of his time he was – a stunning finding considering his career spanned just ten years.

Vygotsky arrived on the scene at a time when a wide gulf existed between behavioral psychology and cognitive psychology (empirical). Vygotsky was dissatisfied by narrow lines of thought in either discipline and was instrumental in putting forth a more comprehensive, ontogenetic structure that integrated the views from each. In bringing together these dynamically different approaches, Vygotsky developed the school of Natural-Cultural Psychology.

Vygotsky’s school has been referred to in Western scientific literature using several different combinations of words including social, cultural, historical and natural, i.e., Historical-Cultural, Cultural-Social Psychology and other variations. We have adopted Natural-Cultural Psychology to descriptively reflect the meaning Vygotsky implied when describing the role of each within his original writing (specifically, the six volume collection of his works). For Vygotsky, the natural component represented the innate programs and neuro-physiological processes that are ‘naturally’ present in each individual at birth and mature as each person matures to adulthood. Vygotsky understood that since neuro-physiological processes exist in everyone, they do not develop; they emerge and mature as the central nervous system, in particular the brain, reaches full maturation. This is a subtle but essential distinction in Vygotsky’s framework as it both acknowledges the difference between innate and learned behavior and allows for later distillation of concepts as he describes how humans mature and develop.

For Vygotsky, the *natural* process represents the physiological instinctual programs that exist in every human. Since these processes are programmed and present in everyone, they do not develop; they *emerge* and *mature* as brain development advances. The *cultural* process *develops* both on the basis of natural processes as they emerge, mature, and integrate, and on internal awareness as it develops in relationship to objects and people in the environment. Vygotsky indicated that as a child’s innate natural processes emerge and mature, his internal awareness (or “I”) creates an external reality (or “world view”) unique to the period of transformation in which he is currently functioning. Vygotsky outlined a series of developmental crisis and transformation periods through which a child’s natural processes mature and cultural processes develop. **These periods, as outlined by Vygotsky in Volume 5 of *The Collected works of Vygotsky*, p. 196, include:**

- Crisis of the newborn
- Infancy (two months to one year)
- Crisis at age one
- Early childhood (one to three years)
- Crisis at age three
- Preschool age (three to seven years)
- Crisis at age thirteen
- Age of puberty (fourteen to eighteen years)
- Crisis at age seventeen

Vygotsky explained that the beginning of each of these periods is signaled by a significant shift in internal awareness, as natural maturational tools (i.e. pointing, crawling, walking, words, talking, etc.) allow a child to impact (or mediate) objects and people in his environment. When new tools emerge, they emerge in a non-directed fashion. When the natural tool first

emerges, the child is unaware of the usefulness of the tool; it emerges without his conscious control as something that at first is just a new thing in the environment. Soon, however, the child begins to make simple connections to the tool's possible usefulness. Once discovered, the child explores and advances possible uses of the tool, while the tool itself matures. Throughout this process, the child's internal awareness (his "I") deepens each time the tool's utility broadens by shifting from an automatic, non-controlled, incidental occurrence to a directed, controlled understood use. At the moment the internal awareness deepens, the child's external reality (or "world view") correspondingly expands, resulting in a higher level of general cognition. (Volume 5, Collected Works, p. 147).

At the moment of birth, a newborn does not have a world view (Volume 5, Collected Works, p. 242). According to Vygotsky, world view only begins to evolve at the moment a newborn enters the world, through the automatic non-directed neurosensorimotor tools nature has biologically provided. While consciousness advances in the context of the cultural environment with an iterative reshaping of the "I" and "world view," underlying biological structures provide the neurosensorimotor mechanisms upon which the whole process depends. Assuming a child enters the world without natural/biological abnormalities and his cultural development advances without undue environmental trauma or stress, his natural neuro-physiological processes mature, his interactions with the outside world qualitatively increase, his awareness deepens, and he advances through all the crisis and transition periods necessary to achieve the life potential.

Vygotsky believed the basic constructs underlying the cognitive and psychological development of a normal child are the same as those guiding the development of a child with neuro-physiological, sensory, or motor abnormalities. He further believed that cultural compensations could be created to offset barriers that may result from natural abnormalities. Through such compensations (i.e. Braille for the blind, sign language for the deaf, etc) cognition and social interactions can appear normal or even excel.

In the course of writing about natural abnormalities, Vygotsky went on to cite the miraculous case of Helen Keller. Had Anne Sullivan not used mediating tools (Braille, sign language, etc) to help her establish an internal awareness and external world-view, Helen's brilliance would not have been revealed, let alone developed and advanced. Most people would have continued to believe her sensory abnormalities were simply an outer reflection of an irreversible cognitive inability to learn. Vygotsky believed that at any given moment each one of us is filled with unrealized potential, upon which a wealth of creative resources can build, regardless of the presence of a handicap.

Dr. Masgutova's Neurosensorimotor Reflex Integration (MNRI) Method, in its construction, is founded on the Scientific Natural~Cultural Psychology established by Vygotsky. The restorative techniques Dr. Masgutova has developed, works to improve function at the natural biological level and is fundamental to shaping internal consciousness, external awareness, interactive capabilities, and developmental possibilities. In this section we have explained one small, but important, aspect of the many concepts and theories proposed by Vygotsky. Within the [Scientific Underpinnings section](#) we include a more complete biography along with a list of resources for those interested in learning more about Vygotsky and his work.