

¹The newsletter title has been changed from **Aphasia Insights to Plasticity Insights** to encompass brain function and plasticity as the foundation of all learning as well as recovery.

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“The enhancement of the ‘means of work’ and the ‘means of behavior’, in the form of language and other systems of symbols, serve as auxiliaries in the process of the control of behavior...this latter phenomenon appears only in the historical period of the development of human behavior and constitutes the principal substance of the entire history of human cultural development. In this sense, *work created man himself*.” pg. 36.

Vygotsky, L. S., & Luria, A. (1930/1993). [Ape, Primitive Man, and Child: Essays in the History of Behaviour](#). Hillsdale, NJ: Erlbaum.

Aphasia Nation, Inc. is committed to educating the wider public about stroke and aphasia and the “*Aim High for Aphasia!*” international Aphasia Awareness campaign.

Stroke Educator, Inc.
4 Aspen Drive
Brunswick, ME 04011
207-798-1449
tbroussa@comcast.net
www.strokeeducator.com
www.aphasianation.org
FB: DrTomBroussard
FB: StrokeEducatorInc
FB: AphasiaNationInc

Plasticity Insights!¹

Lev Vygotsky: The Development and Internalization of Higher Mental Functions.

By Tom Broussard, Ph.D.

This is the next in a series of articles about the science and scientists behind the brain, stroke, aphasia, plasticity and recovery.

Lev Semyonovich Vygotsky (November 5, 1896 – June 11, 1934) was a Soviet [psychologist](#), best known for his work on [psychological development in children](#) covering a period marked by his interest in the role of language in learning. He died of a relapse of tuberculosis at the age of 37, in Moscow ([Wikipedia](#)).

Lev Vygotsky (he changed his name to Vygotsky in the 1920s) was born in the town of [Orsha](#), Belarus (then the Russian Empire) into a non-religious middle-class family of [Russian Jewish](#) extraction. His father Simkha Vygotsky was a banker ([Wikipedia](#)).

He was homeschooled until 1911 and then obtained a formal degree in a Jewish [gymnasium](#). In 1913 Vygotsky was admitted to the [Moscow](#)

[University](#) through the “[Jewish Lottery](#)”: at the time a three percent Jewish student quota was administered for entry in Russian universities ([Wikipedia](#)).

In 1924, Vygotsky took part in the Second All-Russian Psychoneurological Congress where he met [Alexander Luria](#). With Luria’s help, Lev received an invitation to become a research fellow at the Psychological Institute in Moscow. He moved to Moscow and began his career at the Psychological Institute ([Wikipedia](#)).



Lev Vygotsky
(1896 – 1934)

In the summer of 1925, he made his first and only trip abroad to a London congress on the education of the deaf. Upon return to the Soviet Union, he was hospitalized due to [tuberculosis](#) and was out of work until the end of 1926. His dissertation was accepted and awarded in late 1925 [in absentia](#) based on his

illness ([Wikipedia](#)).

Vygotsky was so ill, almost from the beginning, such that it was hard even to be able to write. Instead, he recorded his thoughts and asked an assistant to transcribe it. As a result, his work was difficult to read; it was written in Russian and his work wasn’t translated until years later.

In addition to his research and writing, he founded the [Institute of Defectology](#) for people with medical problems like “congenital blindness, aphasia, and severe mental retardation” and studied the process of mental development and behavior for all people, for “programs of treatment and remediation” as well as “educational programs to maximize the potential of individual children” (Vygotsky, 1978).

But as challenging as his work was, “by no means did Vygotsky’s ideas die with him” (Vygotsky, 1978). Many of his students, including [Alexander Luria](#), “went on to carry out his world-famous pioneering work in development and neuropsychology” where Vygotsky’s ideas of development and educational theories “remain a living part of Soviet psychological thought” (Vygotsky, 1978).

[Internalization of higher psychological functions](#) - Vygotsky stated that, “development, as often happens, proceeds here not in a circle but in a spiral, passing through the same point at each new revolution while advancing to a higher level. We call the internal reconstruction of an external operation *internalization*” (Vygotsky, 1978).

Vygotsky mentioned John Dewey in [Mind in Society](#), who had similar ideas of Vygotsky’s. Dewey touched on it in [Experience and Education](#) (1938), “that the problem grows out of the conditions of the experience being had in the present, and that it is within the range of the capacity of students ... and the process is a continuous spiral” (Dewey, 1938).

[Zone of proximal development \(ZPD\)](#) - Vygotsky proposed a new approach to learning and development using an image of three concentric circles of

learning that is called the zone of proximal development. The outmost ring is where learners cannot learn without help, tools or aids. The innermost ring is where learners have already learned successfully. The middle ring is the “zone of proximal development” where learners can learn with guidance. It has become the basis for much of today’s educational teaching.

Vygotsky referred to it as the level of mental development for a child or an adult. He referred to it as *“the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers”* (Vygotsky, 1978).

Once students enter ‘the zone’, Vygotsky stated, “what a child can do with assistance today, she will be able to do by herself tomorrow” (Vygotsky, 1978).

Current educational theory refers to [scaffolding education](#) with very similar concepts of Vygotsky’s ZPD with *scaffolding* student learning ([Wass, 2014](#)). Scaffolding provides “the support, guidance, advice, prompts, direction, or resources” to be given to the learner for a task that otherwise would be “out of reach” (Wass, 2014). However, giving the scaffolding students with the hardest tasks can “lead to the greatest gains” (Wass, 2014).

Vygotsky’s short career still provides a “vision of a humane approach to difference serves more as a blueprint for broad societal action than a specific educational program...for that, it is an effort worth making” (Smagorinsky, 2012).

Signed: *The Johnny Appleseed of Aphasia Awareness*

The author is a three-time stroke survivor and has aphasia as a result of the strokes. He continues to recover his language skills.

He is Founder and President, Aphasia Nation, Inc., a non-profit organization whose mission is educating the wider public, national and international, about aphasia and plasticity, the foundation of all learning.

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3. Vygotsky, L. S., & Luria, A. (1930/1993). [Ape, Primitive Man, and Child: Essays in the History of Behaviour](#). Hillsdale, NJ: Erlbaum.
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7. [Wass, R., & Golding, C. \(2014\)](#). Sharpening a tool for teaching: The zone of proximal development. *Teaching in Higher Education*, 19(6), 671–684. <https://doi.org/10.1080/13562517.2014.901958>

