

**The Educational Theory of Lev Vygotsky:
a multi-dimensional analysis**

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Based on writings by and about Lev Vygotsky, answers have been constructed to the following questions in eight general areas:

I. Theory of Value: What knowledge and skills are worthwhile learning? What are the goals of education?

II. Theory of Knowledge: What is knowledge? How is it different from belief? What is a mistake? A lie?

III. Theory of Human Nature: What is a human being? How does it differ from other species? What are the limits of human potential?

IV. Theory of Learning: What is learning? How are skills and knowledge acquired?

V. Theory of Transmission: Who is to teach? By what methods? What will the curriculum be?

VI. Theory of Society: What is society? What institutions are involved in the educational process?

VII. Theory of Opportunity: Who is to be educated? Who is to be schooled?

VIII. Theory of Consensus: Why do people disagree? How is consensus achieved? Whose opinion takes precedence?

Extensive endnotes and references are provided.

Introduction

Both methods of teaching and of understanding the psychological development of children have been greatly influenced by the research and theories of Lev Vygotsky. He developed uniquely powerful perspectives on children's learning styles and cognitive abilities that remain highly influential.

Vygotsky places a far greater emphasis on the social context of a child's development than does his equally famous contemporary, Jean Piaget. This socio-cultural perspective makes his work particularly applicable in multicultural educational settings, in teaching children who are disadvantaged and in special education — a field in which Vygotsky had a special interest.

Vygotsky was born in 1896 to middle class Jewish parents in a reactionary Czarist Russia that was boiling with discontent. His birthplace was Orsha, a city of about 37,000 in eastern Belorussia. But he grew up in Gomel, another Belorussian town of similar size.¹

Gomel had a very substantial Jewish population. The Russian census of 1897 says it constituted 25% of the total population.² This provided the Vygotsky family with some insulation from the widespread, government-fueled, anti-Semitism of the time.³

Trained as a teacher, Vygotsky's mother chose to stay home and instruct her eight children. Aided by a private tutor, she provided Lev with his primary education. He then entered public secondary school, where he graduated with a gold medal at the age of 17.⁴

Being Jewish greatly restricted Vygotsky's higher educational opportunities. (Czarist law severely limited Jewish admissions.) He did gain admittance. However, he was not permitted to fulfill his ambition to pursue training as a teacher. Consequently, between the years of 1913 and 1917, he studied medicine, philosophy, history and, ultimately, law.⁵

In Vygotsky's last year in university Communist revolutionaries overthrew the Czar and his government. Vygotsky, himself a revolutionary, was delighted. The new government ended anti-Semitism as official policy, and Vygotsky was able to begin teaching in Gomel. In time he established a research lab at Gomel Teacher's College. Here he conducted psychological research and gave lectures. His psychological knowledge was completely self-taught. Nevertheless, his investigations were very well received. In fact his growing reputation as a psychologist led to the opportunity to restructure the Psychological Institute of Moscow.

It is important to remember that Vygotsky's scholarly work was accomplished in a politically repressive environment — particularly after the accession to power of the brutal communist dictator Joseph Stalin in 1922. But Vygotsky himself was a fervent Communist. In fact, his views on psychology were shaped by his personal commitment to Marxism.⁶

Vygotsky used Marxist methodology to formulate his psychological theories, and shape his conception of research.⁷ In this he was single minded — even dogmatic. He wrote, *"Marxist psychology is not a school amidst schools, but the only genuine psychology as a science. A psychology other than this cannot exist. And the other way around: everything that was and is genuinely scientific belongs to Marxist psychology."*⁸

Vygotsky's pronouncement mirrored the party line. As Communist party boss Ernest Kolman put it, *"... all efforts to think of any theory, of any scholarly discipline as autonomous, as an independent discipline, objectively signifies opposition to the Party's general line to the dictatorship of the proletariat."*⁹ In practical terms, this meant that no deviation from the views of party leaders would be tolerated.

Despite his revolutionary zeal, Vygotsky soon ran afoul of party leaders. Vygotsky's more than one hundred books and articles were suppressed on political grounds. They were briefly released after his death from tuberculosis in 1934. But two years later they again were suppressed on Stalin's order. The so-called "Man of Steel" had come to regard Vygotsky as a "bourgeois idealist," primarily because he studied the work of non-Marxists such as Freud and Piaget.¹⁰

For nearly twenty years Vygotsky's writings were locked away in a clandestine library that could only be accessed by permission of the murderous secret police, the NKVD.¹¹ It wasn't until after Stalin's death in 1953, that Vygotsky's writings were again made public.

In time it became evident that Vygotsky was a conspicuously original scholar. His development of psychology in purely social terms was strikingly insightful. And his emphasis on the social plasticity of human beings was a particularly useful addition to the field.

In time, Vygotsky's work became a major influence both in psychology and in education.¹² In the later, the basic framework he developed, namely that psychological phenomena, such as the development of language, originate in social interaction and that social relations organize them, have proven to have great practical utility.

I. Theory of Value: What knowledge and skills are worthwhile learning? What are the goals of education?

Vygotsky subscribes to the view that the ruling class has historically decided what knowledge and skills are worthwhile knowing. And they want to preserve the existing social order because it serves their interests. Vygotsky stresses that for human potential to be fully realized, this situation has to end. Ultimately, he wants to replace the existing curriculum and teaching methods with the knowledge and skills necessary to transform social and economic injustice into utopian righteousness.

One practical application of this revolutionary ideal is Vygotsky's focus on children with special needs. Such children were largely ignored in Czarist Russia. To begin to remedy that situation, Vygotsky creates a new theoretical basis for "the comprehensive, inclusive, and humanitarian practice of special education."¹³

Making society more just, in a fair share sense, is Vygotsky's ultimate goal. He thinks that, with proper education, everyone's needs will be met and everyone's life fulfilled. To make this possible Vygotsky sets out to learn how to "... generate and lead development which is the result of social learning through internalization of culture and social relationships."¹⁴ He sees this as requiring a new approach to psychology, one that is truly scientific. Thus, Vygotsky sets out "... to learn from Marx's whole method how to build a science, how to approach the investigation of the mind."¹⁵

This investigation causes Vygotsky to develop an unusually deep understanding of the importance of past experiences and prior knowledge in making sense of present experiences and new situations.¹⁶ He comes to the understanding that all new knowledge and newly introduced skills are, to the highest degree influenced by each student's social surroundings — especially family life. So changing schools, while necessary, is insufficient. It is necessary to change an individual's social surroundings in order to truly change the person.

Vygotsky also grasps with unusual clarity the central role that language plays in cognitive development. He knows that language skills are critical for creating meaning and linking new ideas to past experiences and prior knowledge. He emphasizes that these internalized skills or psychological tools "... are used to gain mastery over one's own behavior and cognition."¹⁷ And he maintains that first among these tools is the "development of speech and its relation to thought."¹⁸

Vygotsky's research led him to conclude that language largely determines the ways a child learns "how" to think. This is because it is through words that the child comes to organize complex concepts. "Learning, according to Vygotsky, "always involves some type of external experience being transformed into internal processes through the use of language."¹⁹

Vygotsky is especially concerned about the development of higher-level thinking and problem solving in education. He emphasizes that to be truly effective educators must avoid being mere fact givers. They must, instead, design situations that require students to utilize critical thinking skills. He asserts that only when student's thought processes are being challenged will meaningful new knowledge be gained.²⁰ Of course he also understands that the knowledge achieved through every-day experience also serves as a foundation for the behaviors of every individual.²¹

II. Theory of Knowledge: What is knowledge? How is it different from belief? What is a mistake? A lie?

Plato thought that humans were born with all knowledge and need only to be reminded of what they know. But through observation and study Vygotsky came to understand that humans are not born with knowledge, nor is what we call knowledge independent of social context. Rather, knowledge is socially defined and we learn it as we interpret our surroundings by way of social interaction.²²

Vygotsky does not make as drastic a distinction between knowledge and belief as some other theorists do. For him, knowledge is obtained through past experiences, social situations, as well as one's general environment. In a similar manner, beliefs are instilled into an individual via culture and parental upbringing. So both knowledge and belief are cultural and situationally relative. However, the knowledge revealed by a correct Marxist evaluation is truly scientific and beyond the strictures of culture and upbringing.

In Vygotsky's theory of learning, "mistakes" are crucial. In the course "concept formation," mistakes are made. They are important in that they help shape future learning.²³ From Vygotsky's perspective, "*A concept emerges and takes shape in the course of a complex interaction aimed at the solution of a problem...[A] concept is ... an active part of the intellectual process.*"²⁴

So, for Vygotsky, knowledge formation is a dynamic, ever-changing activity during which “... *the child relies on their own perception to make sense of objects that appear to them to be unrelated ... the child creates his or her own subjective relationships between objects and then mistakes his or her egocentric perspective for reality.*”²⁵ This stage of development is known, paradoxically, as “incoherent coherence.”²⁶ During this stage, as with every other, the making of mistakes is an integral part of any human’s development.

During this process the child’s organization schema becomes less egocentric and begins to incorporate additional information gained from experience into his or her thought processes.²⁷ In this way, mistakes are corrected and new knowledge gained. We see, then, that mistakes are developmentally necessary for any person’s development. And since mistakes often are identified in a social context, social interaction plays a key role in transformation of prior knowledge.²⁸

Vygotsky doesn’t deal with lies directly. Tentatively, though, one might infer that Vygotsky would view a lie as something that occurs as a result of the desire to conform to social norms. For example one might feel one way but report a more socially acceptable reality. Beyond that we cannot go.

III. Theory of Human Nature: What is a human being? How does it differ from other species? What are the limits of human potential?

Davydov and Kerr tell us that it was a momentous occasion in the history of psychology when Vygotsky announced “...*specific functions are not given to a person at birth but are only provided as cultural and social patterns.*”²⁹ In vivid contrast to most of psychologists of his day, Vygotsky saw “*intellectual abilities as being much more specific to the culture in which the child was reared.*”³⁰

From a Marxist perspective, “The essence of man is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations.”³¹ Vygotsky says that it is human nature to, “... learn best in cooperation with other humans.”³² And he contends that, “...*unlike animals - who react only to the environment, humans have the capacity to alter the environment for their own purposes. It is this adaptive capacity that distinguishes humans from lower forms of life. ...The animal can only be trained. It can only acquire new habits. It can*

through exercises and combinations perfect its intellect, but is not capable of mental development through instruction in the real sense of the word."³³

Remember, for Vygotsky, human beings can only be understood within the social context, the time period and the part of the world in which they live. So human nature is not universal nor is it static. It always is dependent on its specific social and historical formation. Of course, we also have to consider biological factors.³⁴ Yet, to be human means surpassing a level of functioning that your biological traits alone would directly dictate.³⁵ For example, Vygotsky "*considered the capacity to teach and to benefit from instruction a fundamental attribute of human beings*".³⁶

Also, although some animals, chimpanzees for example, have the ability to create and use tools, only humans have the ability to utilize psychosocial tools such as "*language, different forms of numeration and counting, mnemotechniques, algebraic symbolism, works of art, writing, schemes, diagrams, maps, blueprints, etc.*"³⁷. In essence human beings are differentiated from other animals by their ability to develop psychological tools that are "used to gain mastery over one's own behavior and cognition."³⁸:

In this connection, Vygotsky places great emphasis on the importance of spoken language. He maintains that this is the most critical tool that sets us apart from other species. As he puts it, "speech is a very powerful psychological tool that lays the foundation for basic structures of thinking later in one's development."³⁹

Vygotsky's concept of the zone of proximal development (ZPD) is important here as well. This zone is "*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.*"⁴⁰ In theory, then, so long as a person has access to a more capable peer, any problem can be solved. So the *practical* limits of human potential depend upon quality social interactions and one's environment.

IV. Theory of Learning: What is learning? How are skills and knowledge acquired?

According to Piaget, learning is what results from both mental and physical maturation plus experience.⁴¹ That is, development preceded learning. In contrast Vygotsky maintains that learning leads development.⁴² For Vygotsky "*learning is a necessary and universal aspect of the*

process of developing culturally organized, specifically human, psychological functions."⁴³ In other words, learning enables us to be truly human.

Vygotsky says the two primary means of learning occur through social interaction and language. And it is language that greatly enhances humans' ability to dynamically engage in social interactions and to share experiences. As Vygotsky puts it, "The most important fact uncovered through the ... study of thought and speech is that their relationship undergoes many changes."⁴⁴ Initially, a child's new knowledge is interpsychological, meaning it is learned through interaction with others, on the social level.⁴⁵ Later, this same knowledge becomes intrapsychological, meaning inside the child. Then new knowledge or skill can be mastered on an individual level.⁴⁶

The previously mentioned idea of the zone of proximal development (ZPD) is central to Vygotsky's view on how learning takes place. Remember, he described this zone as, "*the distance between the actual development 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.*"⁴⁷ Vygotsky maintains that learning occurs just above the student's current level of competence.⁴⁸ It follows logically, then, that students will have a higher performance when working with a more capable student.

The zone of proximal development works in conjunction with a process known as scaffolding. "*Scaffolding is a six-step approach to assisting learning and development of individuals within their zone of proximal development.*"⁴⁹ Knowledge, skills and prior experiences from an individual's general knowledge create the foundation for scaffolding. The use of language and shared experience is essential to successfully implementing scaffolding as a learning tool.⁵⁰

V. Theory of Transmission: Who is to teach? By what methods? What will the curriculum be?

For Vygotsky, those who are to teach are the "More Knowledgeable Others." In other words, anyone who has a better understanding or a higher ability level than the learner, particularly in regards to a specific task, concept or process.⁵¹ The MKO can be a teacher or an older adult. But other possibilities for the MKO could include a peer, a sibling, a younger person, or even a computer. The key consideration is that MKO must have more knowledge about the

topic or skill being learned than the learner does.⁵² Any such person can advance the student's competence provided the process occurs within the zone of proximal development (ZPD).

Vygotsky's findings strongly indicate methodological procedures for the classroom. Most generally, *"In Vygotskian perspective, the ideal role of the teacher is that of providing scaffolding (collaborative dialogue) to assist students on tasks within their zones of proximal development."*⁵³

During scaffolding the first step is to build interest and engage the learner. Once the learner is actively participating, the task should be simplified by breaking it into smaller subtasks. During these tasks, the teacher needs to keep the learner focused and concentrating on the most important ideas of the assignment. One of the most integral steps in scaffolding consists of keeping the learner from becoming frustrated. Then the final task associated with scaffolding involves the teacher modeling possible ways of completing tasks, which the learner then can imitate and ultimately internalize.⁵⁴

Vygotsky's findings also indicate that the teacher should establish a social context wherein a more competent learner can be paired with a less competent one. The goal is to have the former elevate the latter's competence. Vygotsky's research indicates that this promotes sustained achievement and cognitive growth for less competent students."⁵⁵ Put simply, students need to work together to construct their learning, teach each other so to speak, in a socio-cultural environment. In-class opportunities for collaboration on difficult problem-solving tasks offer support to students who are struggling with the material. Theoretically, by interacting with more capable students who mediate transactions between the struggling students and the content, all students benefit.⁵⁶

In Vygotsky's view, the teacher has the "task of guiding and directing the child's activity."⁵⁷ At first the teacher assumes the major responsibility for the problem-solving process, then gradually moves the accountability to the learner. The learner then can solve novel problems "on the basis of a model he [sic] has been shown in class."⁵⁸ In essence, *"the child imitates the teacher through a process of re-creating previous classroom collaboration."*⁵⁹ It is important to emphasize that the teacher does not control this process with rules and structure; rather, the teacher collaborates with the students while providing support and direction.⁶⁰

Assignments and activities that can be accurately completed by a student without assistance indicate that the student has mastered the necessary prior knowledge. In traditional

classrooms this would occur at the conclusion of a unit, but this is Vygotsky's entry point. Of course, the teacher must carefully group the student that "can potentially develop in collaboration with a more capable person."⁶¹

Vygotsky also offers recommendations for curriculum content. Take, for example, the teaching of writing to preschoolers. Garton and Pratt explain why Vygotsky argues for shifting the teaching of writing to preschool. This recommendation is rooted in how Vygotsky differentiates between two forms of speech: spoken and written. Vygotsky asserts that a child is capable of developing an understanding that spoken speech can be symbolized in writing by progressing from "drawing things to drawing speech."⁶² Vygotsky suggests then that the preschool curriculum should be designed so that it was organized to "ease child's transition from drawing things to drawing speech."⁶³

Vygotsky also favors including the mastery of tools and technologies in the curriculum. He recommends that students be taught how to use any and all culturally available tools for problem solving and learning.⁶⁴ In this way, students will internalize the use of these tools and be able to employ them on their own in the future.⁶⁵

In sum, Vygotsky's findings suggest that the curriculum should challenge and stretch learner's competence.⁶⁶ It should also provide many opportunities to apply previous skills, knowledge and experiences, with "*authentic activities connected to real-life environment.*"⁶⁷ "*Since children learn much through interaction, curricula should also be designed to emphasize interaction between learners and learning tasks.*"⁶⁸

VI. Theory of Society: What is society? What institutions are involved in the educational process?

According to Vygotsky, "... *society is the bearer of the cultural heritage without which the development of mind is impossible.*"⁶⁹ It is this 'society' allows the learner to develop cognitively through social interactions. Of course, the use of spoken and written language vastly expands the extent of that interaction. "*Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological).*"⁷⁰

Perhaps Vygotsky was comfortable generalizing about 'society' in this way because he was living in post-revolutionary times. The revolution had been accomplished in Russia, and the

“New Soviet Man” was emerging in the Soviet Union. The “dictatorship of the proletariat” was supposedly at hand.

So far as the institutions involved in the educational process are concerned, Moll reports that Vygotsky “*considered school the best laboratory of human psychology.*”⁷¹ Moll notes: “*At first glance, it may be easily seen that no special educational environment is needed, that education may be accomplished in any environment whatsoever. ... It is not very hard to conclude that no sort of artificial educational environment has to be created, that life educates better than any school. ... This view is wrong, however.*”⁷²

For Vygotsky, society (and therefore, the social interaction that goes with it) is part and parcel of what happens in schools. “*Schools are incorporated into the larger society and have that as their context, so that some of their activity settings are determined by this larger contextuality.*”⁷³ “For Vygotsky the classroom is also a social organization that is representative of the larger social community “... it is the social organization ... that is the agent for change in the individual.”⁷⁴

This statement is not meant to “imply that informal education is unimportant.”⁷⁵ Rather, he stresses, “*children’s learning begins long before they attend school. ... Any learning a child encounters in school always has a previous history.*”⁷⁶

VII. Theory of Opportunity: Who is to be educated? Who is to be schooled?

Vygotsky repeatedly asserts that it is within the “social environment” that learning takes place. And since no individual is able to escape their social surroundings, all within a society are being educated all the time.

Vygotsky writes:

*“...In this sense, education in every country and in every epoch has always been social in nature. Indeed, by its very essence it could hardly exist as anti-social in anyway. Both in the seminary and in the old high school, in the military schools and in the schools for the daughters of the nobility ... it was never the teacher or the tutor who did the teaching, but the particular social environment in the school which was created for each individual instance.”*⁷⁷

Socialization is the process of cultural transmission, both unintentional and deliberate.⁷⁸ And, according to Vygotsky, this process is universal. Every person is socialized, and educated in the

society in which they are enveloped. Schooling is simply a sub-specie of education.⁷⁹ And since Vygotsky favored reform of the entire socialization process up to and including schooling, in order to create “the new Soviet man” — a citizen who would be fundamentally different and better than the average human.⁸⁰

Vygotsky’s Russia of the late 1920’s and early 1930’s was populated by millions of illiterate peasants and workers, and Vygotsky saw them as worthy of every opportunity that schooling affords. Indeed, his theories, in part, were a response to the need to solve the urgent and practical problems of schooling new citizens for a socialist, and eventually communist, state.

When referring to the education of children with disabilities, Vygotsky observed “*changes in the context of education may have profound consequences for the developmental processes.*”⁸¹ He went on to say that children with disabilities should be included in the general education classroom, and not be separated into self-contained classrooms, because he felt that those children who were educated separately from “normal” children “would proceed in a totally different, and not beneficial, manner”.⁸² If he were alive today, Vygotsky would call this the model of full inclusion.⁸³

But Vygotsky was not naïve about how different such children might be. He noted that “*a child whose development is impeded by a disability is not simply a child less developed than his peers; rather, he has developed differently.*”⁸⁴ Nevertheless, Vygotsky thought that nearly all children, with the exception of the profoundly handicapped, should be schooled side-by-side in a regular education classroom.

VIII. Theory of Consensus: Why do people disagree? How is consensus achieved? Whose opinion takes precedence?

To contemplate Vygotsky’s theory of consensus, one must consider his Marxist perspective. Marx wrote in the *Communist Manifesto*, “The history of all hitherto existing society is the history of class struggles.”⁸⁵ Everywhere one sees social domination of subordinate groups due to the power, authority, and coercion of dominant groups. These dominant groups create the rules for success and opportunity, typically denying subordinate groups opportunities and success. Thus the powerful continue to monopolize power, privilege, and authority and meaningful consensus remains well beyond reach.⁸⁶

Marx added, however, that conflict was normal due to social structures and not due to human nature.⁸⁷ It is not only possible, but inevitable, Marx argued, that consensus would eventually emerge as a classless communist society evolves from the struggle.

Being a Marxist, Vygotsky would have looked at the world through essentially the same lens as Karl Marx.⁸⁸ However, it should be remembered that Vygotsky was living in the post-revolutionary Soviet Union. Consequently, at least some of the conflict mentioned above would be ameliorated by revolutionary attempts to build a classless and conflict-free society.

Anyway, the primary conflict that Marx saw was based on the "...conflict between the material forces of production and social relations of production."⁸⁹ Social relations, on the other hand, can be seen as the "...distribution of income generated by the material forces of production" and tend to change only abruptly and violently.⁹⁰

On a more microcosmic level, Vygotsky would say that people disagree because they have been differently socialized and, thus, perceive reality differently. Remember, for Vygotsky, we are all products of our social surroundings. At this level, then, some semblance of consensus is possible provided that the oppressed are socialized in ways that prevent them from appreciating the extent, perhaps even the existence of, their oppression.

At a professional level, Vygotsky considered the views of other theorists — including non-Marxists. That is what got him in trouble with Stalin. That he appreciated the work of other experts who were trying to comprehend human psychology shows that he was not the sort of true believer who ignores all views but his own.

Consider Vygotsky's evaluation of Piaget's theories and findings. Vygotsky appreciated Piaget's clinical methods. He also admired Piaget's detailed pictures of children's thinking, his assertion that development occurs in distinct, measurable, and observable stages, his focus on what children have, not what they lack, and his finding that the difference between adults' and children's thinking is qualitative, not quantitative.⁹¹ However, he also believed that there were major flaws in Piaget's methods.

In any case, Vygotsky was willing to learn from others. And he was not intimidated by the official consensus of party ideologues.⁹² He opposed the Marxist reflexologists (behaviorists), who were politically ascendant at that time. And he did so at great personal risk.⁹³ Vygotsky even took on the politically well-connected man who had hired him. R. N. Kornilov, director of the Kornilov Institute,. "One year after joining the Institute, Vygotsky saw fit to reject

Kornilov's attempt at a compromise solution to the consciousness problem (i.e., "reactology"), subjecting it to...a devastating philosophical criticism."⁹⁴

We see, then, that Vygotsky did not put consensus building above what he regarded as truth seeking. On the other hand, as Cole explains it "... *it was characteristic of both Vygotsky and his close colleague Luria that they attempted to place their research within the general circle of contemporary scientific ideas influencing psychology. In order to be maximally persuasive, they sought to demonstrate both the correctness of their own approach and the points where it made contact with (and then diverged from) the ideas of their contemporaries.*"⁹⁵ This, in the end, caused his works to be banned for many years.

¹ Today Belarus is an independent nation situated between western Russia and eastern Poland. Controlled for centuries by a variety of ethnically different nations, the people of Belarus long lacked a truly distinctive national identity. When Vygotsky's was born, Belarus had been part of Czarist Russia since the mid eighteenth century.

² Gomel, <http://en.wikipedia.org/wiki/Gomel>

³ All of Belarus was within the "Pale of Settlement," a region in western Russia where, under the reign of Catherine II (the Great), most Jews had been forced to live since the eighteenth Century.

⁴ The Mozart of Psychology, Lev Semenovich Vygotsky, 1896 – 1934, <http://vygotsky.afraid.org/>

⁵ "Lev Semonovich Vygotsky"

<http://evolution.masey.ac.nz.asssign2MHR/indexvyg.html>

⁶ Lev S. Vygotsky: The Man and the Era, [International Journal of Group Tensions](http://www.springerlink.com/content/v3145jv768818187/), vol 31, #4, <http://www.springerlink.com/content/v3145jv768818187/>

⁷ Fred Newman and Lois Holzman, *Lev Vygotsky: Revolutionary Scientist* (Routledge, London, 1993), 2.

⁸ Vygotsky, Lev Semenovich, *Collected works* (Vol. 3). New York: Plenum, 1997, 331.

⁹ Quoted in Ivan Z. Holowinsky, *Psychology in Ukraine: A Historical Perspective*, Lanham, University Press of America, 2008, 12.

¹⁰ All in the Mind, *The Socialist Review*, Issue 176, June 1994, <http://pubs.socialistreviewindex.org.uk/sr176/parrington.htm>

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