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**An East-West Comparative Study of Vygotskian Schools of Thought:  
Implications for ESL Curriculum Development**

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and respect for my opinion and comments.**

**I think, Mary Maguire's approach to teaching a second language  
is in line with Vygotsky's philosophy,  
since for both of them children are speaking personalities**

If no painting comes to be *the* painting, if no work is ever absolutely completed and done with, still each creation changes, alters, enlightens, deepens, confirms, exalts, recreates, or creates in advance all the others. If creations are not a possession, it is not only that, like all things, they pass away; it is also that they have almost their whole life before them.

Maurice Merleau-Ponty

from Newman and Holzman (1995)  
Lev Vygotsky: revolutionary scientist

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## Foreword

### Two Worlds - One Love

*Fifteen years ago I went to the seaside, to the Russian city of Odessa. Looking at the endless and mysteriously gleaming surface of the Black Sea studded with even more mesmerizing huge and elegant white ships, I felt miserable and helpless. I knew that I had almost no chance to see other countries and people, that the white ships were for a select few in the Communist Russia, and the world outside the borders of the Soviet Union had been stolen away from me. When I saw the place of destination - Montreal - on one of the ships, the word looked and sounded almost unreal to me. I couldn't help feeling that there wasn't one world with many countries but two different worlds, and my life was too short to see how people lived in far away cities. The only thing which could comfort me at that time was the hope (which dies the last), that life is unpredictable and everything may happen. That was how my Montreal Dream began.*

*I have always believed that people have the ability to dream for a reason, that dreams attract some mysterious energy from the universe, which turns them into reality. This is the positive side about dreaming and believing. The negative side about following the yearnings of our hearts is that there is no due date and only the patient are the winners. Though eventually I was given a chance to travel all over Europe and work in US, I had to wait for a long time to fulfill my Montreal Dream - so long that I almost forgot about it. When in 1994 I safely landed in Canada, I realized that the already forgotten Dream had subconsciously guided me through all my numerous trips around*

*the world keeping in store that city - Montreal. I suddenly saw a connection between changing my place of residence and the Black Sea episode, which gave rise to my incipient desire to see other countries, understand different mentalities, explore various cultures, and world views.*

This East-West comparative study can be looked upon as my attempt to better understand people living in two different worlds and societies - the former Communist Russia and Western countries. It is a chance for me to take the best from the two mentalities and concentrate on what unites Eastern and Western scholars in their interpretation of Vygotskian psychology, his theory on education and his ideas on teaching a second language. Ironically, this became possible far away from Russia, the country where I first heard the name of Vygotsky.

I owe my "meeting" Vygotsky in Montreal to my ESL Curriculum Development, Ethnography classes professor and my thesis supervisor Mary Maguire who has helped me to rediscover Vygotsky on Canadian soil. Thanks to Mary Maguire, I learned that this famous Russian scholar is well known in North America, and has many followers who continue the dialogue on social psychology, education and language learning, which this Russian renegade started more than sixty years ago.

If a Canadian Professor and other Western scholars have spent many years trying to understand a Russian scholar like Vygotsky, there must be something in common and enduring between such two seemingly different worlds, as East and West. Perhaps, it is people's propensity to believe in some everlasting human values, or maybe, it is love for

the poesy and enigma of Vygotsky's books that inspires his followers all over the world to pursue what he had no time to finish.

My thesis is one more attempt to contribute to the existing research on theoretical interpretations of Vygotsky's theory of psychological development. It is one more voice of a teacher and native speaker of Russian, captivated by Vygotsky's ideas and his lifelong search for the universal concepts essential for building the future. That is, raising and teaching children.

The following are definitions of some key conceptual terms that I use in this study.

### Definition of Key Terms

Activity Theory offers an analytical conceptual tool to examine human psychological activity in context. Vygotsky explained the concept of activity through discovering a number of activities which can serve as generators of consciousness. These activities, or generators of consciousness are the core of the Activity Theory. They serve as an actualization of culture in individual behavior, that is reflected in the symbolic function of gesture, play and speech systems. Thus, Activity Theory acknowledges that human activities are embedded in socio-cultural-historical contexts. That is, it looks at individuals and their socio-cultural context as inseparable entities.

Consciousness. The reflection of reality. By "reflection" is not meant a passive photographic process but a dynamic process reflecting the subject's activity. This activity involves a dynamic interactive model with consciousness and behavior representing a unity.

**Paedology** is a complex approach to children's development and learning based on the knowledge of biology, physiology, psychology, pedagogics, medicine and defectology

**Problem situation.** A situation which is created through teachers' instruction and contains a problem which has to be solved.

**Self-Regulation.** Conscious evaluation by an individual of his/her own psychological processes.

**Situation** is understood in this thesis as a system of external (with regard to an individual) conditions, stimulating and mediating his/her activity. These conditions could be problems, motives, goals, etc.

### **Zone of Proximal Development (ZPD): Scaffolding and Socio-Cultural**

**Interpretation.** Within the framework of a scaffolding interpretation, the zone of proximal development is defined 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, p. 86)

A cultural interpretation construes the zone of proximal development as the distance between the cultural knowledge provided by the socio-historical context - usually made assessable through instruction - and the everyday experience of individuals. (Davydov & Markova, 1983)

## **Chapter One**

### **Placing Vygotsky and Situating the Study**

In this chapter I review the main ideas of Vygotsky's theory against the political and historical background in Russia in the thirties. I also look into the issue of how Vygotsky is interpreted by his Russian and Western followers.

#### **Political and Historical Situation in Russia in 1930s**

Despite all the contributions Vygotsky made to the development of psychology, education and other disciplines, his fate as a scientist was not a happy one. For a long period of time, Vygotsky was forgotten in his own country or was mentioned just in passing. Thus, Alex Kozulin writes the following about Vygotsky in his translation of one of Vygotsky's most famous books *Thought and Language*:

A prodigal reader, he felt equally at home with commentaries on Shakespeare's tragedies, the philosophy of Hegel, and clinical studies of the mentally retarded. A profound theoretical, he was also a man of practice who founded and directed a number of research laboratories, including the first Russian Institute for the study of Handicapped children. As Stephen Toulmin so aptly remarked, Vygotsky carried an aura of almost Mozartian giftedness. And yet he lived in times that were hardly favorable to Mozarts. (Kozulin, 1987, p. XI)

The last sentence of this quotation refers to the historical and political situation in Russia in the thirties, an era characterized by the suppression of any views and opinions that ran counter to the ideology of the Communist Party. This may account for the various interpretations of Vygotsky's theory in Russia by Vygotsky's followers who often simplified and adapted his ideas to accommodate them to the political and historical

demands of the time. The early thirties required the development of a theory of psychology that would be in line with the Marxist theory of objective science. Soviet psychologists were expected to derive psychological categories directly from the works of Marx, Engels and Lenin. This approach to psychology seriously undermined Vygotsky's research program which relied upon such "bourgeois" theories and methods as psychoanalysis, Gestalt psychology, and cross-cultural analysis of consciousness.

At the same time, the basic idea of Vygotsky's instrumental psychology had something in common with Marxism, in that the former refers to the notion of sign as a tool with the help of which people change psychologically, i.e. it can influence people's consciousness. The above understanding of the role of the sign in changing people's psychological functions is analogous to a Marxist approach to the role of labor and labor tools as a means of transforming people physically and psychologically. Though in essence, Vygotsky's approach to defining consciousness and Marxist understanding of people's psychological development were completely different, the above analogy made it possible for Vygotsky's followers to adapt his ideas to the demands of the time and portray Vygotsky as a "deviant" but still a Marxist before the ruling circles. In other words, the mediating role of signs as "*psychological tools*" actively participating in people's psychological development, was eventually substituted by the Marxist theory, according to which the crucial role in the process of the development of people's Higher Psychological/Mental Functions, was attached to the labor and *labor tools*. The above labor tool analogy also served as the basis for the atheistic propaganda in the former



Soviet Union. It provided a Marxist explanation of the driving force of human evolution through people's participating in labor activities with the help of labor tools.

In short, Marxist understanding of the history of human development is based on the *concrete tools* (i.e. labor tools/instruments) which, according to Marxist theory, transformed animal reflexes into human behavior. Vygotsky emphasizes the importance of the *ideal psychological tools* (i.e. signs and words) in the evolution of human's Higher Psychological Functions. In Communist Russia at that time, the prevailing view was that it is concrete labor tools which people should use to change the world. Vygotsky's life threatening "ideal" stand was interpreted as anti-Communist propaganda. Though Vygotsky was not among those who physically suffered from the Soviet regime, his views and ideas could be called suppressed and repressed. That is why one of the modern Russian scholars Yaroshevsky referred to Vygotsky's theory as a "repressed science" [*репрессированная наука*] (Yaroshevsky, 1996).

### **Life and Work of Lev Semenovich Vygotsky**

Vygotsky (1896-1934) was born to a Jewish family. The family lived in Gomel, a small town in Belorussia that was one of the republics of the former Soviet Union (in the ninetieth, after the collapse of the Communist regime, Belorussia, became a separate country, but very soon it again joined the Russian Federation). His father worked in a bank while his mother was raising her eight children. The Vygotskies were interested in literature; they spoke foreign languages.

In 1913, Vygotsky became a law student at the Moscow University. At the same time, he also entered historical and philosophical faculties of the private Moscow Shanyavsky University. Vygotsky started his career not as a psychologist but as philologist and literary critic. In 1917, Vygotsky graduated from both Universities and returned to Gomel. He worked as a school and college teacher. He taught various subjects among which were the Russian language and literature, art theory, psychology.

In January 1924, Vygotsky made a presentation at the Second Psychoneurological Congress in Leningrad (now the city is known as St.Petersburg). The presentation was a great success and Vygotsky was invited to work at Moscow University's Institute of Experimental Psychology by its director Kornilov.

### Three Phases of Vygotsky's Career

Vygotsky's career and the development of his ideas have undergone three phases: the first phase is connected with his moving to Moscow and the founding of his School of Thought [Школа Виготского] (1924-1927); the second phase is known as the instrumental period [инструментальный период] (1927-1931); and the third final phase (1931-1934) is characterized by his research on paedology, education and development (Yaroshevsky, 1996).

#### **Moving to Moscow (1924-1927)**

After moving to Moscow, Vygotsky started working with children who suffered from mental and physical illnesses. Vygotsky tried to better understand what was happening in Moscow psychological circles at that time and find his own unique way of looking at the development of Higher Psychological Functions. As a result of his search

Western Part of the Former USSR. Moscow (Russia) and  
Vygotsky's Place of Birth - Town Gomel (Belorussia)



for finding a unique place in psychology, Vygotsky founded his own School of Thought. He paid special attention to the way the psychologists treated the concept of consciousness, and some time later came up with revolutionary ideas regarding the above concept. His new approach to understanding consciousness was developed during the second phase of his career which Yaroshevsky (1966) calls the instrumental phase. During this phase, Vygotsky attached a major mediating role in the development of human psychological functions to the sign which was understood as a “psychological tool” or instrument [инструмент].

### Moscow Decade: Instrumental Phase (1927-1931)

Before the development of Vygotsky's theory, there existed two approaches to defining consciousness: subjective and objective. According to the subjective approach, consciousness was treated as a non-physical phenomenon, and the inner world was looked upon as a given. According to the objective approach developed by well-known Russian scientist Pavlov, consciousness was governed by certain laws within a stimulus-response paradigm. During 1927-1931 Vygotsky attempted to carve a path between subjectivism and objectivism by introducing the concept of Elementary (analogous of animal functioning) and Higher Psychological Functions. According to Vygotsky, Higher Psychological Function is a system of interrelated functions, qualitatively distinct, and hence irreducible to the Elementary Functions - because in his view, Higher Psychological Functions represent *mediated forms of psychological activity*. Thus, Vygotsky improved the stimulus-response approach and introduced a third element - the

concept of mediation. This concept could be iconically presented in the following way:

**STIMULUS - RESPONSE + MEDIATIONAL MEANS.**

Vygotsky viewed the relation between world and subject as mediated by tools and signs. In his view, we create signs, a class of artificial stimuli that act as means to control behavior. A frequently cited example of how signs can mediate people's behavior is the following: by tying a knot in a handkerchief, we create the cause of our own later rememberings. Since the sign enables us to master our own psychological functioning, it is called a "psychological tool" (or instrument). Thus, the key to the nature of higher psychological functioning lies in the mediating role of signs. The sign does not operate along with other "natural" stimuli, since with the help of the sign, we create elaborate symbolic representational systems (natural languages, music, mathematics, science) which mediate our relation to the world through the power of their representation. This makes it possible to speak of reality as being interpreted by the sign.

After introducing the notion of Elementary and Higher Psychological Functions, the next step for Vygotsky was to establish an analytical unit, a crucial link that defines the influence exerted on the child by the environment. In other words, Vygotsky wanted to answer the question of how the social environment influences children's development in the light of his understanding of the mediated nature of Higher Psychological Functions. For Vygotsky, the process of mastering human experience is transmitted by *speech* and leads to the formation of new methods and forms of activity, as I illustrate it in Figure 1.

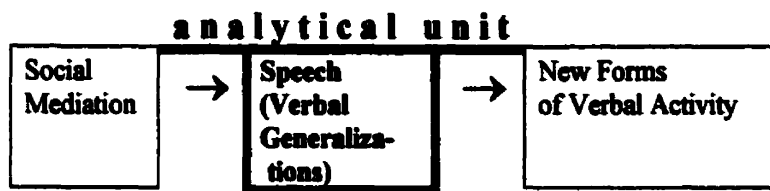


Figure 1

Graphic representation of the analytical unit of children's development

It became possible for Vygotsky to establish the connection between speech and concept formation (or new forms of verbal activity), after he referred to the linguistic interpretation of the semantic content of the word. He refers here to the designating, nominative function of the word or its external form which is registered in dictionaries and serves as a means of systematizing experience, and the system of generalizations or the word's internal form which is a source of variability (of meanings). According to Vygotsky, the latter serves as the analytical unit between the child and environment as I illustrate in Figure 2.

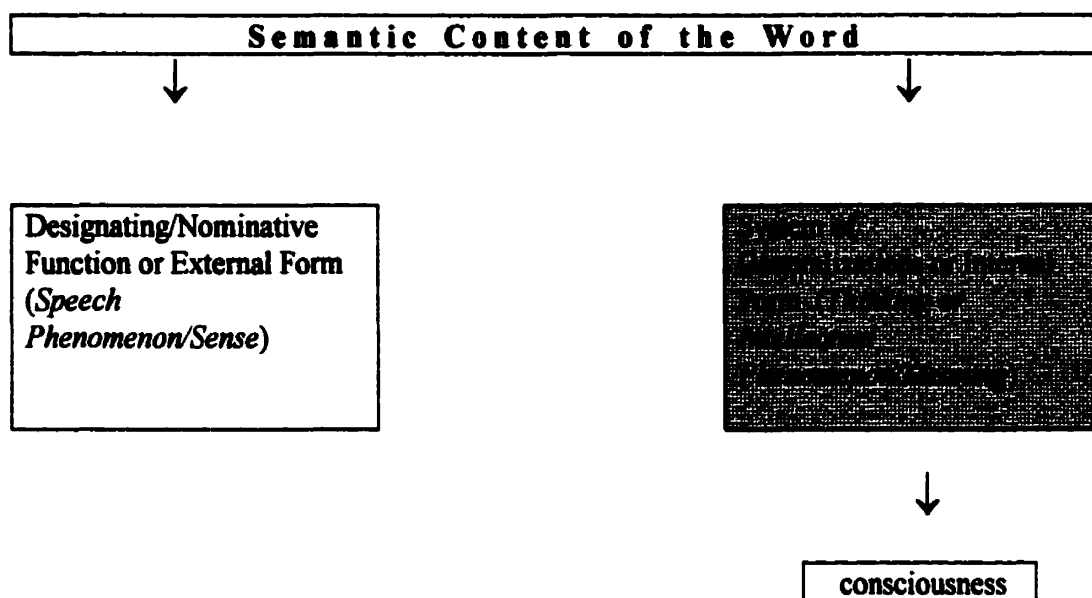


Figure 2

Unit of analysis (shaded) within the semantic content of the word

As I show in Figure 2, the semantic content of the word is comprised of the speech phenomenon/external form of the word, and of the thinking or intellectual phenomenon/internal form of the word. Thus, within Vygotsky's theory there is no gap or schism between thinking and speech. The thought is not just expressed in a word, but connected to the word by means of some complex psychological processes. That is, in Vygotsky's view, the thought cannot exist without the word (Vygotsky, 1996a). For Vygotsky, an individual's consciousness changes along with the development of the word meanings, depending on age and other socio-cultural factors.

## **Final Phase of Vygotsky's Career (1931-1934)**

In the late twenties, Vygotsky became actively involved in paedology (a complex approach to children's development and learning based on the knowledge of biology, physiology, psychology, pedagogics, medicine and defectology). Looking at paedology as the basis for a synthesis of the different disciplines studying children, Vygotsky at the same time, explicitly differentiated paedology from other disciplines by defining it as the science of children's development. In this respect his version of paedology was different from those of his contemporaries who emphasized just the interdisciplinary nature of paedology in the study of the child.

One can study children's diseases, the pathology of childhood, and that would also to some extent be a science about the child. In pedagogics, the upbringing of children can be studied, and that too is to some extent science of the child. One can study the psychology of the child and that too will to some extent be a science about the child. Therefore we must specify from the very beginning what exactly is the object of paedological investigation. That is why it is more exact to state that paedology is the science of the development of the child. The development of the child is the direct and immediate object of our science. (Van der Veer & Valsiner, 1994, p. 308)

Vygotsky's definition of paedology suggests that he saw it as fundamentally a science of development. According to Vygotsky, development is time-bound and has "complex organization in time", which means that "calendar time" ("passport age") does not reflect the development of children (Van der Veer & Valsiner, 1994, p. 309). At different periods of children's development, time units that are normally the same (e.g. an interval of one month), are very different developmentally, since they cover different "intensities" of events in the life-course. So, one month at the age of 15 may be rather uneventful as far as development is concerned, while the same period during infancy may



cover some relevant reorganizations that lead the child to a qualitatively new level of functioning. Thus, Vygotsky emphasizes the uneven and variable nature of development: it proceeds “cyclically or rhythmically” and if one wanted to graphically depict it, the depiction could not be made with the help of an exponential straight line. All development takes the form of “wave-like curves”, both when we look at particular functions (e.g. weight, speech, intellectual development, memory, attention, etc.) and at development in general. For Vygotsky this is the “first law” of development: development is a process which takes place in time, and proceeds in a cyclical fashion. Vygotsky also described the “second law” of development: different aspects of children’s development develop in uneven and non-proportional ways (Van der Veer & Valsiner, 1994, p. 309). This premise will be further developed in chapter four in the section *“Between-Type” and “From-To” Type of Development*.

### **Interpretation of Vygotsky’s Ideas by his Followers**

Vygotsky’s Russian followers developed his theory, but sometimes they gave his ideas a different interpretation and often distorted them. They were guided by the ideological caution and by honest scientific disagreement with Vygotsky. One of the most controversial issues in the interpretation of Vygotsky’s theory relates to the concept of activity which he understood as a general explanatory principle of concept development which finds its concretization in the specific culturally bound types of semiotic mediation, among which speech is the most important. In other words, for Vygotsky, human behavior and consciousness must be considered in terms of culturally

meaningful actions mediated by psychological tools and means of interpersonal communication.

In the mid-30s, “revisionist” versions of the Activity Theory developed by A.N. Leontiev’s school (1978) appeared. Vygotsky’s followers under the leadership of A.N. Leontiev, put practical (material) actions at the forefront while playing down the role of signs as mediators of human activity. In a nutshell, it could be said that they attempted to solve the problem of the relationship between consciousness, child and reality reflected in the child’s concept formation in the following way: development of the relationship between consciousness and the child occurs as a result of the development of the system of psychological operations, which in their turn are determined by the *practical relations between the child and reality*, i.e. it is *practical acquaintance with and the use of objects* (this phenomenon is known in Russian literature as “objectivation” [«предметность»]) that leads the child toward the cognitive mastery of a situation. Thus, Vygotsky’s followers played down the role of psychological tools/signs as a chief mediator. This implies, that Vygotsky’s thesis: *from action to thought in the context of psychological tools* was given a different meaning by his Russian followers. A.N. Leontiev writes in this respect that “the main or as they sometimes say, constructive characteristic of activity is its objectivation” [«основной, или, как иногда говорят, конструктивной характеристикой деятельности является ее предметность»] (Leontiev, 1983, p. 142). According to another Vygotsky’s Russian famous follower, Luria, the child first learns about the world not through his/her mother’s speech, but through the objects which surround the child and at which the child points:

When the 2-year-old child clearly points at the appropriate object while naming it, it does not quite mean that the representation of the object by the word has been adequately formed yet. (Luria, 1969, p. 131)

For Vygotsky, the child from early childhood starts developing word meanings through the mediation of his/her mother's speech (which is understood as a psychological tool). First, these meanings are immature, i.e. they don't fully represent the objects. However, later with the help of an adult or more experienced peer, children's meanings gradually mature. In this thesis I examine the process of developing and maturation of children's meanings through the mediation of adults and connect this to teaching and learning a second language.

Vygotsky's Western followers developed his ideas along two lines. Some scholars put the emphasis on the Western traditional quantitative paradigm and practical implementation of the theoretical hypotheses (Engestr me, 1996; Hedegaard, 1996). Others followed Russian traditions of theoretical inquiry (Lave & Wenger, 1966; Wertsch, 1981, 1985, 1991; Cole et al., 1971, 1974 and others). What unites the researchers who put an emphasis on practical research and those ones who interpret Vygotsky's ideas within a theoretical framework of psychological, philosophical and sociological categories, is their focus on the concept of activity, or theory of consciousness.

In this thesis I refer to some Western Vygotskian followers (Lave & Wenger, 1966; Lantolf & Appel, 1994) who, in my opinion, deviated from Vygotsky's line of thought and with whom I disagree. I try to trace the origin of their misinterpretation of Vygotsky's ideas. I think, very often it is the misleading influence of Vygotsky's Russian

successors that accounts for misunderstanding of Vygotsky by some of his Western colleagues. As paradoxical as the above assumption may seem at first glance, there are grounds for it. To better understand what I mean, it is appropriate to ask the following question: who are the most well-known experts on Vygotsky's theory in Russia? Most of them are the children of those who have worked with Vygotsky and who continue to develop their fathers' ideas which were formed during the Communist regime. They could be called the "followers of Vygotsky's followers". The most famous follower of Vygotsky's "original" followers is A.A. Leontiev, who is A.N. Leontiev's son. Though the latter is considered to be an official successor of Vygotsky in Russia and the founder of Russian Neo-Vygotskian School of Thought, he is often accused of adjusting Vygotsky's ideas to the political and historical situation at the time of purges (Kozulin, 1990). Since A.N. Leontiev's influence in Russian scientific circles as Vygotsky's official successor has been very strong and due to the fact that the former did develop a lot of significant ideas from a Vygotskian perspective, it became very difficult to distinguish between his attempt to adapt Vygotsky's theory to the Russian socio-political reality and the real contribution he made to developing the ideas of his famous predecessor. This accounts for the difficulties the Western scholars have to face while pursuing their research within a Vygotskian perspective and in close cooperation with the official Russian authorities on Vygotskian theory.

In addition to interpreting Vygotsky through the interpretation of his Russian successors, Western scholars have two more difficulties, in my opinion. One is connected with the language barrier and the other - with the lack of knowledge of Russian

mentality, philosophy and history. This accounts for the years of cold war between the Socialist world and Western countries which contributed to creating a distorted, incomplete, cursory and simplified image of Russia, its history and people. Having said that, I find it also important to mention that even the best books are always not enough to fully understand foreign culture and different ways of thinking. Perhaps, this is what made James Wertsch to go to the former Soviet Union and spend a lot of time in Moscow with the professors from Moscow State University while writing his book on Vygotsky's theory *Voices of the Mind* (1991). Ironically, this confirms Vygotsky's emphasis on the socio-cultural-historical analysis of human development.

### **Summary**

In this chapter, I examined the political and historical situation in Russia in the thirties and its impact on life and work of Lev Semenovich Vygotsky. I described three phases of Vygotsky's career to better understand the origin and development of the main ideas of his theory: moving to Moscow (1924-1927), the Moscow decade: instrumental stage (1927-1931) and the final stage of Vygotsky's career (1931-1934). I also introduced the problem of interpreting Vygotsky's ideas by Vygotsky's followers in Russia and Western countries.

## **Chapter Two**

### **Methodology**

In this chapter I provide a rationale for my decision to write a theoretical thesis from a comparative East-West perspective. I examine the opinions of Russian and Western scholars on the importance of conducting a theoretical investigation on Vygotskian Schools of Thought. I also discuss how my background as a native speaker of Russian and my understanding of Russian mentality and history provides some insights into the interpretation of the key issues within Vygotskian theory.

### **Perspectives and Positioning**

The life and work of Lev Semenovich Vygotsky have increasingly become a focus for contemporary social discourse among educators and psychologists in Russia and abroad. Vygotsky is considered to be one of the greatest theorists of the 20th century (Bruner, 1986). His theoretical research is based on the profound knowledge and scientific intuition which make his work a focus of attention among those contemporary scholars who are interested in his school of thought. According to one of his followers, Russian scholar, A.A. Leontiev, Vygotsky's theoretical conceptions are in need of further elaboration because Vygotsky didn't have time to finish his research (A.A. Leontiev, 1982).

Vygotsky attached great importance to his theoretical research within a qualitative paradigm. Thus, Van Ijendoorn & Van der Veer note that according to Vygotsky, “this registration-induction procedure [research within a quantitative paradigm] is always a selection based upon theoretical notions already available” (Van Ijendoorn & Van der Veer, 1984, p. 21). They also write that “Vygotsky posits that the origin of a certain phenomenon can only be understood through an analysis, a reconstruction of ideas after the fact” (Van Ijendoorn & Van der Veer, 1984, p. 21).

While explaining the reasons why research on English as a second language within Vygotskian school of thought is not very popular in the West, Lantolf & Appel also touch upon the problem of methodology:

There are two principal reasons why such research [SL research] has had only minimal influence on L2 research in the West. First, only recently have scholars working outside of the former Eastern block began to have fuller access to the writings of Vygotsky and his followers. ... Of more immediate relevance, however, is the fact that second language acquisition research has squarely situated itself within the natural science research tradition - a tradition that values predictive explanation and controlled, heavily quantitative experimentation. (Lantolf & Appel, 1994, p. 1)

This statement by Neo-Vygotskian scholars led me to conduct a theoretical investigation on understanding how Vygotskian theory could be applied to the development of ESL curriculum. Their book *Vygotskian Approaches to Second Language Research* reflects a recent interest in the West with regard to ESL research and Vygotskian theory.

Thus, my study attempts to undertake the important task of further theoretical investigation of Vygotskian schools of thought with the aim of extending the existing research on an ESL curriculum and the role of the teacher from Vygotskian perspective. I

use a textual analysis across two languages (English and Russian) as a strategy for comparing key and influential Eastern and Western interpretations of Vygotsky's ideas and conceptual approaches to understanding ESL teaching and learning.

In other words, I aim to provide some insights concerning the role of ESL teachers as agents and participants in curriculum development using children's zones of proximal development and Vygotsky's theory in general as a conceptual frame. I pay special attention to teaching as a means of developing children's personalities and learning potential. This approach acquires a special importance for ESL curriculum since the process of revealing and developing children's personalities is closely connected with teachers' discovering and inspiring children's creative potentials. According to Vygotsky, the primary importance at schools should be given to developing a creative approach to learning which is closely linked with children's ability to acquire knowledge on their own while discussing, arguing and listening to the opinions of others. This premise is closely connected to Vygotsky's main thesis within the framework of the ZPD that teaching should be based on the personal activity of children and the role of the teacher should be to direct and guide the individual activity of children. Thus, Vygotsky understood learning as a close collaboration between the teacher and children that is accomplished through social interaction. On the basis of the existing textual research I collected in Russia and abroad, I examine ways of implementing Vygotsky's understanding of learning through interaction within ESL curriculum.



## **Understanding Vygotsky: the Role of Researcher Background**

As it is characteristic of qualitative research, my role as a researcher is not neutral. It reflects a set of purposes and expectations which draw from my cultural and linguistic background. I bring to the research interpretive frameworks based on my Russian education and values, on the one hand, and vast Western experience, on the other, which allows me to conduct the textual analysis across languages from this unique perspective.

Being a graduate student of Moscow Linguistic University<sup>1</sup> which is known for actively collaborating with Vygotsky's Russian followers (Ilya Galperin), and having done much of my schooling as well as my first M.A. in Russia, gives me a first-hand experience in understanding the Russian tradition of research followed by Vygotsky and in comparing it with Western scholars' interpretation of Vygotsky's theory.

If we refer to Lantolf & Apple's quote about Vygotsky's influence in the West, we might find new evidence of why Russian SL research has had only minimal influence on ESL research in the West. Although due to the political situation in Russia that I have discussed in chapter one, Vygotsky had been discovered in the West before he was fully acknowledged in his own country, he has not yet achieved a place in most Western introductory books. According to Van Ijzendoorn & Van der Veer, Vygotsky has not been fully recognized in the West because most Western scholars cannot read his original works in Russian nor do most have necessary Soviet philosophical background:

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<sup>1</sup> Former Maurice Thorez Moscow State Pedagogical Institute of Foreign Languages, which is a member of the International Association of Universities.

There are several reasons for this [why Vygotsky is not fully recognized in the West]. Firstly, of course, there is the language problem. Only few Western psychologists can read Russian and but a fraction of Vygotsky's work has been translated into English. His best known work is, of course, "Language and Thought". Unfortunately, this is a drastically abridged version of the original, in which nearly all references to its philosophical (Marxist) backgrounds have been deleted. The serious student must therefore rely upon the original... Finally, a correct evaluation of Vygotsky's significance to psychology is hindered by the fact that his work is closely interwoven with a philosophical background relatively unknown in the West. Vygotsky was not only a psychologist, but a methodologist and a philosopher as well. He attempted to chart out a new vision of psychology with a foundation of Marxist-Leninist thought. Some knowledge of the work of Hegel, Marx, Engels and Lenin is therefore indispensable when reading Vygotsky's work" (Van Ijzendoorn & Van der Veer, 1984, pp. 13-14).

Being a native Russian speaker and having a considerable experience in translating, gives me a unique opportunity to examine in detail key Vygotskian concepts along with his major theoretical constructs by comparing English and Russian scholars' theoretical interpretations of his work. My knowledge of the two languages helps me to look at any misinterpretations that might be caused by the lack of translated books written by Vygotsky or by truncated translations and translation errors. To avoid any translation mistakes in my thesis, I first give the quotations in Russian and then translate them into English when I refer to the Russian sources (when I use already translated literature, I give just English versions). Knowing the two languages also allows me to clarify any misunderstandings caused by a language barrier in general. This language barrier makes it impossible for Western scholars to study Russian Vygotskian school of thought without mediators, and limits their chances to better understand and further develop Vygotsky's ideas. The ability to understand Russian reality and mentality allows me to conduct a theoretical investigation within Vygotskian school of thought from both an experience-near and experience-distant perspective. My knowledge of Marxist-

Leninist theory which I studied at Moscow Linguistic University, helps me to situate Vygotsky's theory within its political and historical contexts. This knowledge is very important for understanding the development of Vygotsky's ideas since his ideas are based on Marxist-Leninist philosophy. For example, such an important Vygotskian notion as tool analogy, is borrowed from Marx and Engels's theory as I have examined it at the beginning of chapter one.

### **Purpose and Focus of the Study**

The purpose of my research is to investigate Eastern and Western approaches to the major concepts within the theory of Russian scholar Lev Semenovitch Vygotsky with the aim of drawing some theoretical conclusions for ESL curriculum, teaching and learning. My inquiry is approached from a comparative perspective and involves a critical textual examination of the interpretations of Vygotsky's theory by key Western scholars (Engestrom, Hedegaard, Lantolf & Appel, Newman & Holzman, etc.) as well as by the Russian Vygotskian School of Thought represented by its official leader A.N. Leontiev (1978, 1983) and some modern Russian Vygotsky's followers, such as Rogova (1977), Shevandrin (1995), Merlin & Klimov (1967) and others.

The research focuses on examining the Activity Theory within Soviet Functional Psychology, according to which "the development of various psychological functions directly depends on the frequency and intensity of their practical usage" [**«развитие той или иной психической функции прямо зависит от частоты и интенсивности ее практического использования»**] (Nemov, 1995, p. 492). My interpretation of the

functional criteria/functional elements within Vygotskian schools of thought and their application to ESL curriculum, makes this thesis different from any other studies on Vygotsky's theory from an educational perspective. I identify these functional elements and define their role in children's concept development. It allows me to analyze the important issue of whether children's concept development is tied to objects and practical thinking, or to the Higher Psychological Functions/abstract thinking. In this study I discuss the concrete ways ESL teachers might teach a second language by developing children's Higher Psychological Functions through understanding their practical thinking. For this purpose, I identify and examine the main features of teacher-pupil communicative relations within teaching English as a second language from the perspective of Vygotskian Activity Theory.

Specifically I focus on the following concepts within the Activity theory, that are frequently discussed in both Eastern and Western literature: *consciousness*, *regulation and development/the zone of proximal development*. Being embedded within Soviet Activity theory, these concepts are closely connected with each other and it is difficult to examine one without the other. To demonstrate these intertwined relationships, I begin by trying to tease these concepts apart and then compare and analyze them.

### Activity Theory and Consciousness

The concept of Activity Theory within Vygotsky's School of Thought is closely related to the concept of consciousness. Vygotsky explained the concept of consciousness through discovering a number of activities which can serve as generators of

consciousness. These activities, or generators of consciousness are the core of the concept of activity. They serve as an actualization of culture in individual behavior, embodied in the symbolic function of gesture, play and speech systems. I identify and carefully analyze the above active driving forces of consciousness/concept development.

On the basis of the research on Activity Theory conducted by Vygotsky's followers in Russia and abroad, I draw some theoretical inferences about the different interpretations of the analytical unit of consciousness (Figure 1, chapter one) and the implications these interpretations might have on the understanding of the relations between the child and reality, or the child's concept formation. In Figure 3 I illustrate the relations between the child and concept formation through the mediation of the analytical unit of consciousness.



Figure 3

Relations between the child and concept formation  
through the mediation of the analytical unit of consciousness

### Regulation, Consciousness and the ZPD

Vygotsky viewed consciousness as more than awareness of one's cognitive abilities. He emphasized that it is comprised of the self-regulatory mechanisms that humans deploy in solving problems. For Vygotsky, the transformation of elementary processes into higher order ones can be possible only through the mediating function of culturally constructed artifacts including tools, symbols, and more elaborate sign systems,

the most important of which in Vygotsky's view, being language. According to Vygotsky, words and other signs are the means that direct our mental operations, control their course and channel them toward the solution of a problem confronting us ( i.e. words play a major role in the regulation of consciousness or concept formation). Vygotsky also wrote that real concepts (he calls them mature concepts as opposed to the immature ones) are impossible without words, and thinking in concepts does not exist beyond verbal thinking (i.e. reality is perceived through words, and learning to direct or regulate one's own mental processes with the help of words and signs is an integral part of the process of concept formation). In Vygotsky's view, life realities can be perceived, by and large, only verbally, since for him, *the very process of human thinking is verbal*, i.e. people can't think without using words (people always think in a language). I attempt to illustrate that this regulatory function of language acquires a special importance in the context of an ESL curriculum, and for the role of the teacher in the process of teaching children within their zones of proximal development. I clarify and examine the regulatory functions of children's concept development within Vygotskian schools in Russia and in the West.

### **Research Questions**

As is characteristic of qualitative studies, the general research questions became more precise over time as I was becoming more familiar with the literature, which allowed me to determine what is more relevant or significant to my general research interests.

**My main research questions are the following:**

- 1. What are the similarities and differences between Vygotsky's ideas and the interpretation of his theory by the leader of Russian Vygotskian School of Thought, A.N. Leontiev?**
  - 1.1. What is the role of the functional criteria in Vygotsky's theory of semiotics?**
  - 1.2. How can Vygotsky's major concepts of regulation and development/ZPD within the functional criteria be interpreted from an educational perspective?**
  - 1.3. What are the main features of Vygotsky's Activity Theory?**
- 2. How can Western interpretations of Vygotskian School of Thought fit in with the major conclusions within Vygotsky's theory concerning the leading role of the teacher in children's development?**
- 3. What could a comparative East-West analysis of Vygotskian Schools of Thought mean for the role of the teacher as a mediating agent in second language teaching and learning?**

## **Summary**

**This chapter contains my rationale for using a textual analysis across languages within a qualitative-ethnographic tradition. I mapped out perspectives for my research and described my role as a researcher along with how I, as a bilingual researcher, can contribute to further investigation of Vygotsky's theory within ESL curriculum. I also described the purpose and focus of my study which influenced the reformulation of my research questions.**

## **Chapter Three**

### **Functional Criteria in Vygotsky's Theory**

In this chapter I provide a background on the functional psychology and discuss the role of the functional psychology in Vygotsky's theory. I identify the main functional elements within Vygotsky's theory on semiotic mediation. I also define the schematic place of the functional elements within the semantic structure of the word in an attempt to reconcile Vygotsky's socio-historical approach to the main ideas of the functional psychology.

The issues discussed in this chapter are closely connected to the debate among Vygotsky's followers on whether he attaches the main importance to the pragmatic, practical aspect of human activity/consciousness, represented in this thesis by the functional criteria, or to the mediating role of the word meaning. The purpose of this chapter is not to separately solve the first or the second part of the problem, but to unite them, examine the relationship between the two major issues which at first glance seem to be controversial, and show how they both could fit in within Vygotsky's theory. The conclusions I draw in this chapter are connected to my discussion in chapter four concerning the concepts of regulation, development and ZPD from an educational perspective.

In this chapter I address research question 1.1.

*What is the role of the functional criteria in Vygotsky's theory of semiotics?*



and two other related questions:

1) *What are the main functional elements in Vygotsky's theory?*

2) *What is the place of the functional elements in children's concept/*

*consciousness development?*

## Functional Psychology

According to the Russian Psychological Dictionary (Petrovsky & Yaroshevsky, 1990) Functional Psychology investigates those functions of the process of consciousness which participate in adapting humans' Higher Psychological Functions [**высшие психические функции**] to the requirements of the social milieu. Functional Psychology is understood

**как наука о функциях (или деятельности) сознания в их отношении к нуждам организма и в связи с задачей его эффективной адаптации к изменяющемуся природному и социальному окружению. Она охватывает не только сознание, но и поведение /приспособительные действия/, мотивы этого поведения, индивидуальные различия между людьми, механизмы научения и другие проблемы, связывающие психологию с практикой.**

as a science which studies functions (or activities) of consciousness as a means of satisfying people's needs and their effective adaptation to the changing conditions of natural and social environments. It studies not only consciousness, but also behavior (adaptive actions), motives of this behavior, individual differences among people, ways of teaching and other issues which relate psychology to practice (Petrovsky & Yaroshevsky, 1990, p. 434).

In other words, a functional approach to psychology was developed because of the requirements of the social practice. The social practice demanded the transition from the "sterile", separated from life structural psychology to the psychology that can serve as a means of *solving people's real life problems*. There were more and more voices in

support of a psychology that should study not only pure consciousness, but behaviors (adaptive actions). This includes studying the *motives* of people's behavior, *individual differences* among people, *means of solving problems* and *reaching goals*. Understanding psychology as a means of solving life problems could be connected with the issue of approaching teaching and learning to the requirements of everyday life, which I discuss in later chapters. Thus, *motivation*, connected with children's *needs problems* along with *goals* could be interpreted within the functional psychology as the main *functional elements/aspects* of children's/people's development/concept formation.

A Russian text-book on psychology gives the following definition of the functional theory of the psychological development [функциональная теория психического развития]: "It is a theory according to which the development of various psychological functions directly depends on the frequency and intensity of their practical usage in life" [«это теория, утверждающая, что развитие той или иной психической функции прямо зависит от частоты и интенсивности ее практического использования в жизни»] (Nemov, 1995, p. 492).

Although Vygotsky's work cannot be reduced to the ideas of functional psychology, it could play an important role in the understanding of such major concepts of his theory as the concept of regulation and development/ZPD from an educational perspective. The analysis of the functional psychology in Vygotsky's theory could be important for investigating the role of the teacher as a mediating agent in second language children's personality and language development. It could also provide clues as to how Vygotsky's works can contribute to ESL teaching and learning. The link between the functional psychology and ESL curriculum accounts for a special interest in Russia in

the functional criteria of Vygotsky's theory along with functional psychology, in general. This interest did not escape the attention of James Wertsch who wrote the following in early eighties:

It is very important to point out that Soviet psychologists define their levels of analysis and the units used in them on the basis of functional criteria. This sometimes leads to experimental approaches seldom seen in Western psychology. Rather than look, say, for cognitive or linguistic structures common to a set of processes, Soviet psychologists tend to seek constants in the functional structure of every activity.

One result of this is that when Soviet psychologists speak of the "structure of an activity", they have in mind something very different from what has come to be known as "structuralism" in Western psychology. The units they use are defined on the basis of the function they fulfill rather than on any intrinsic properties they possess. (Wertsch, 1981, p. 19)

Therefore, the Russian Vygotskian School of Thought on functional psychology from an educational perspective and within teaching ESL calls for "doing things" with words and solving real life problems with the help of language, i.e. for the functional usage of ESL.

While the issue of the functional approach to developing school curriculum and teaching ESL will be investigated in other chapters, this chapter provides a general theoretical examination of the functional criteria in Vygotsky's theory. This inquiry is made with regard to the role of the socio-cultural milieu in the development of the functional aspect of concepts, as well as to such necessary conditions of concept formation, as motivation, problem/needs and goals. Though I sometimes refer to Vygotsky's translated version of *Thought and Language* (1987, Cambridge: MIT Press), mostly, my investigation is based on the original Russian version of *Thought and*

*Language [Мышление и речь]* (1996a, Moscow: Labirint). This work reflects Vygotsky's latest views and ideas since it was the last book written by Vygotsky before his untimely death. Vygotsky's famous *Pedagogical Psychology* (1996b) [*Педагогическая психология*] is also quoted in this chapter. For a long time this book has been prohibited in Russia for political reasons. To my knowledge, it has never been translated into any languages.

### **Functional Aspect of the Concept**

In chapter five of the *Thought and Language*, Vygotsky (1996a) points out that the functional/practical or pragmatical element of the concept should not be ignored. The most important function of the concept is how it reflects the real world. In other words, concepts should serve people as a means of expressing their *attitudes* towards the world. Vygotsky argues that the concept should not be studied as “frozen” and static, i.e. out of its context and out of the process of thinking where it has been formed and continues its development (Vygotsky, 1996a).

According to Vygotsky's theory, concept formation is the reflection of the process of children's thinking and must be studied in a context. Thus, Vygotsky attributes much importance to the situated, contextual, functional usage of language. The following are the main functional aspects of concept formation in Vygotsky's theory: motivation, problem/needs and goal [*мотив, задача/потребности, цель*]. To understand how the above functional elements actually “function”, it is also very important to investigate the issues of means of reaching a goal and solving a problem.

### Problem, Goal, Motivation

In Vygotsky's view, when a child has to define a word that is isolated from its context (i.e. to define words through words), he/she will never understand how this word functions or acts in real life and how it can help in solving real life problems. That is, the child has to know how to operate with words in everyday life when he needs them.

Words always fulfill a communicative, intellectual and problem-solving function. This may account for the fact that Vygotsky investigates concepts from the functional point of view with regard to solving real life problems. These life problems are connected to children's needs which become the subject of children's thinking due to their understanding of something or communicating with somebody, doing an assignment or following an instruction. The end result depends on the formation of concepts (Vygotsky, 1996a). Vygotsky's functional approach links concept formation with thinking and real life needs. The end-result of thinking within the functional paradigm is the unity of form (nominative meaning/external form of the word) and content (internal form of the word), which paves the way to thinking in concepts.

Thus, learning isolated words and mentally connecting them to the objects does not result in developing concepts. To develop a concept it is necessary to have a *problem* which can be solved only with the help of concepts. Vygotsky states that

**ВСКАЯ МЫСЛЬ СТРЕМИТСЯ СОЕДИНИТЬ ЧТО-ТО С ЧЕМ-ТО, ИМЕЕТ ДВИЖЕНИЕ, СОЧЕТАНИЕ, РАЗВЕРТЫВАНИЕ, УСТАНОВЛИВАЕТ ОТНОШЕНИЕ МЕЖДУ ЧЕМ-ТО И ЧЕМ-ТО, ОДНИМ СЛОВОМ, ВЫПОЛНЯЕТ КАКУЮ-ТО ФУНКЦИЮ, РАБОТУ, РЕШАЕТ КАКУЮ-ТО ЗАДАЧУ.**

every thought tries to unite something with something, moves along its own direction, has its own cross-sections, development and establishes relations between something - in other words, fulfills a certain function, does a job, solves a problem. (Vygotsky, 1996a, p. 354)

An important feature of the process of concept formation based on the problem-solving function of thinking, is the *goal*. The goal can contribute to directing the flow of people's thoughts and actions and serve as one of the means of streamlining the process of thinking while solving a problem. In other words, in Vygotsky's view, goal-directed acts of thinking aimed at solving a problem are a necessary condition for the formation of concepts:

...только при возникновении известной потребности, нужности в понятии, только в процессе какой-то осмысленной целесообразной деятельности, направленной на достижение известной цели или решение определенной задачи, может возникнуть и оформиться понятие.

...a concept can be developed only if there is a need or necessity in it and only in the process of a conscious goal-directed activity, aimed at reaching a certain goal or solving a certain problem. (Vygotsky, 1966a, p. 125)

Vygotsky draws special attention to *motivation* which accounts for children's *needs, problems, interests, choices, attitudes and emotions* and reveals the real meaning of words and thoughts. According to Vygotsky:

При понимании чужой речи всегда оказывается недостаточным понимание только одних слов, но не мысли говорящего. Но и понимание мысли говорящего без понимания его мотива, того, ради чего высказывается мысль, есть неполное понимание. Точно также в психологическом анализе любого высказывания мы доходим до конца только тогда, когда раскрываем этот последний и самый утисненный внутренний план речевого мышления: его мотивацию.

It is never enough to understand people's words without understanding their thoughts. At the same time, understanding people's thoughts without understanding their motives, i.e. what is behind the thoughts, is not a complete understanding either. The same applies to the psychological analysis of speech, which can be fully accomplished only if it reveals this last and the most hidden inner plane of the speech act - its motivation. (Vygotsky, 1996a, p. 358)

The motivation in the children's speech serves as a driving force for thinking, and could be compared to an individual's *desire*, that is directed at solving problems.

Vygotsky writes the following in this regard:

**Если мы сравнили ... мысль с зависшим облаком, проливающимся дождем слов, то мотивацию мысли мы должны были бы... уподобить ветру, приводящему в движение облака.**

If we compared ... the thought to a hanging cloud shedding the rain of words then we could compare the motivation of the thought ... to the wind, which moves the clouds. (Vygotsky, 1996a, p.357)

In Vygotsky's view, the motivation is created by the social life situation :

**Каждой фразе, каждому разговору предшествует возникновение мотива речи - ради чего я говорю, из какого источника аффективных побуждений и потребностей питается эта деятельность. Ситуация устной речи каждоминути создает мотивацию каждого нового изгиба речи, разговора, диалога... Устная речь в этом смысле регулируется в своем течении динамической ситуацией.**

The motive of speech precedes each phrase, each conversation - why I speak, from which source of affective desires and needs this activity draws. It is the verbal situation, which constantly motivates conversation, dialogue and any sudden changes in the development of thoughts and speech... This implies that the flow of oral speech is regulated by the dynamic situation. (Vygotsky, 1996a, p. 238)

The social situation is entirely determined by the necessity to satisfy some needs, make a request, put a question or give an answer, by statements and objections. That is, by such related to motivation factors as problems, needs, goals. These problems, needs and goals can be solved, satisfied or reached accordingly by means of speech (requests, questions and answers, statements and objections). Thus, life situation stimulates motivation through settings connected with children's needs, problems and goals. The motivation, in its turn, stimulates the thought, directed at solving a problem. Then, the motivated thought is subjected to the mediating meanings of the words, i.e. to the linguistic intervention of the teacher/adult. The above functional pattern/structure of the

concept development from an educational perspective could be described in the following way: the teacher introduces to children a real life problem, which could motivate them to start thinking and look for its verbal solution. To speed up the development of the motivated thought, the teacher verbally regulates and directs the process of children's thinking and speaking.

### Means

While admitting that motivation, problem/needs and goal are necessary elements of developing concepts, Vygotsky does not think that the above functional elements play the most important role in the process of concept formation. For Vygotsky, motivation, problem/needs and goal are necessary but not the main conditions for concept development. This may account for the fact that neither problem/needs nor goal can provide a genetic explanation of concept formation, i.e. how concepts develop. Vygotsky writes in this respect that

**было бы неправильно игнорировать вовсе или сколько-нибудь пренебрегать значение функционального момента жизненной задачи как одного из реальных и мощных факторов, питающих и направляющих весь процесс интеллектуального развития в переходном возрасте. Но столько же ошибочно и должно было бы усматривать в этом функциональном моменте казуально-динамическое развитие, вскрытие самого механизма развития, генетический ключ к проблеме развития понятий.**

it wouldn't be right to entirely ignore or underestimate the importance of the functional moment of the life problem as one of the real and powerful factors, stimulating and directing the whole process of the intellectual development at the transitional age. But it would be equally wrong to think that this functional moment could give a genetic clue to the dynamics of concept development or to the very mechanism of concept development. (Vygotsky, 1996a, p. 132)

The main importance in concept formation Vygotsky attributes to the communicative act and people's ability to understand each other with the help of the speech, that is, to the verbal communication which is involved in developing meanings.



To elaborate on the above it is important to remember that according to Vygotsky, the word comprises the functional moment/sense, represented by its nominative/designating function and thinking/intellectual phenomenon/meaning, represented by the system of generalizations. In the context of the semantic structure of the word, a preschool child uses the sense of the word or the nominative/communicative function of the word, i.e. the child deals with the functional aspect of the word. In this respect, there is not much difference between the child and adult, i.e. they both can think within the functional paradigm. Even at the very early stages of development, the child like an adult can understand his needs, problems and employ goal-directed actions to solve them. A child like an adult, uses a word as a means to satisfy his/her needs, i.e. both the child and adult use the nominative/communicative function of the word more or less in the same way. For example, if the child wants something, he/she like an adult, can think practically and use approximately the same words as an adult to express, "name" and get hold of the object of his/her desire. Children develop functional elements of concepts very early in order to participate in the communicative act and satisfy their needs. In other words, both the child and adult can use the word as a means of understanding something, solving a problem and reaching a goal. Thus, a word for the child and adult is used more or less in the same way in its communicative nominative/designating function reflecting the sense of the word:

**...дошкольник именно в функциональном отношении сталкивается с задачами совершенно так же, как и взрослый, когда он оперирует понятием. Но только решает эти задачи дошкольник совершенно по-иному. Ребенок так же, как взрослый, пользуется словом как средством; для него, следовательно, слово так же связано с функцией сообщения, осмысливания, понимания, как и для взрослого.**

**Таким образом, не задача, не цель и не исключая из нее детерминирующая тенденция, но другие, не привлеченные этими исследователями факторы, очевидно, обуславливают существенное генетическое различие между**

**мышлением в понятиях взрослого человека и иными формами мышления, отличающимися особенностями раннего возраста.**

...it is with regard to the functional moment, that a preschool child faces the problems in the same way as an adult and uses the concepts to solve these problems. The difference between the child and adult is *in the ways of solving the problems*. The child like an adult can use the word as a means. In the context of its communicative function, perceiving or understanding something, the word is understood in the same way by the child and adult.

Thus, apparently it is neither the problem nor the goal and connected with it determining tendency, but other...factors, which determine a considerable genetic difference between the adult's thinking in concepts and other forms of thinking, characteristic of the child at early age. (Vygotsky, 1996a, p. 122)

According to Vygotsky, the main difference between the child and adult is in different conceptual/conscious forms of thinking, which are connected to the thinking/intellectual phenomenon and the meaning of the word. For example, though children use more or less the same words while speaking with adults, they understand these words in a different way. Indeed, if the child knows just the word "flower" and doesn't know the word "rose", he/she may use the word "flower" when actually meaning to refer to the rose. It could happen to the child at preschool age, due to the underdeveloped system of generalizations of word meanings connected to the thinking/intellectual phenomenon of the word. Thus, though preschool children establish basic mutual understanding with adults through verbal communication relatively early, their approach to thinking is not conscious/conceptual and they use functional equivalents of the concepts (called by Vygotsky immature concepts) instead of real concepts (i.e. mature concepts). In other words, although the child's and adult's functional moment of the word, i.e. sense/nominative function of the word, often coincide, their word meaning within the system of generalizations is different, due to the difference in the forms of thinking.

This may account for Vygotsky's interest in investigations of thinking and consciousness. Through these investigations he attempts to explain how children's concepts/consciousness develop and how adults can contribute to this process (Vygotsky, 1996a). Vygotsky's inquiry leads to the research on the relations between the external form/sense of the word representing Elementary Psychological Functions and its internal form/meaning representing Higher Psychological Functions (consciousness, thinking). Thus, in Vygotsky's view, the genetic explanation of concept development could be found through the research on the semantic structure of the word and the development of word meaning which constitutes the main difference between the child's and adult's ways of thinking. In other words, the research on the genetic explanation of concept development can lead to the research on the Higher Psychological Functions, which develop along the trajectory of word meaning and reach the highest level in the thinking/intellectual phenomenon of the word. The above means that it is the word meaning which serves as a *means* of developing a qualitatively different from functional new forms of thinking, i.e. conscious thinking in concepts. It is to the issue of means/word meanings that Vygotsky attributes the main importance in the implementation of any psychological operation along with any goal-directed functional activity. This accounts for the fact that a goal by itself as well as other functional elements, can neither provide a goal-directed activity nor regulate the flow of this activity and its structure.

Thus, the main functional elements of the process of children's concept formation (*motivation, problem/ needs and goal*) are directed and regulated by means of the word meanings, i.e. the functional elements develop along the trajectory of word meanings.

The development of children's functional elements along the trajectory of meaning 'covers' the distance between the functional element/sense of the concept (speech phenomena), or between the child's immature concept, and the system of generalizations/meaning of the word, or the mature concept. In Vygotsky's view, the immature concept is understood as a concept in which meaning is not fully developed, i.e. its development is limited to functional/practical thinking aimed at solving everyday problems which help children to function within the social environment. The mature concept is understood as a concept with fully developed meaning, reflecting not only children's functional/practical thinking, but also their abstract thinking within the system of generalizations. Vygotsky's concept of the zone of proximal development is all about the development of children's meanings from the immature concepts to the mature ones with the help of adults or more experienced peers. If children's concepts were fully developed (i.e. were real mature concepts), there wouldn't be any need in creating the zone of proximal development. I analyze this premise in greater detail in chapter four.

Thus, word meaning mediated maturation of the functional elements understood as children's problem-solving abilities, develop along the trajectory of word meaning from the functional moment or word, represented by the sense word or nominative function of the word, to the intellectual and thinking phenomenon of the word, represented by the meaning or Higher Psychological Functions, as I illustrate it in Figure 4.

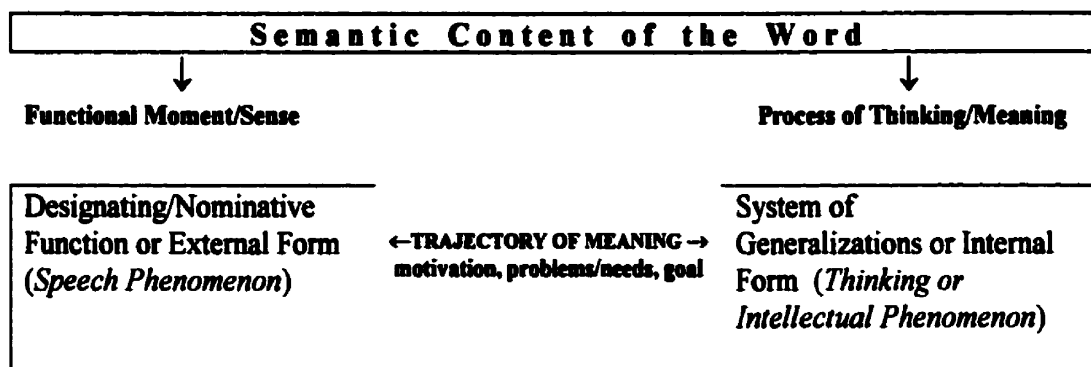


Figure 4

Solving and regulating a goal-directed problem within the trajectory of the word meaning. The place of the functional criteria within the word

Due to the crucial role of meaning in the process of concept development, such main functional elements as motivation, problem/needs and goal become not just less important in comparison to the word meanings, but 'shrink' to the constituent elements of the latter. While motivation regulates a goal-directed thought and stimulates children's needs, which set children's problems and goals, the motivation itself is regulated by the word meaning. Thus, the functional elements are not the "key players" in the process of concept development but its necessary components. Vygotsky's conclusion could be important for my future analysis of the functional approach to developing concepts within Vygotsky's theory and its interpretation by his followers.

## FUNCTIONAL ROLE OF THE SOCIO-CULTURAL MILIEU

As it has been mentioned before, motivation, problem/needs and goal, though not playing the main role in concept development, are still important and necessary elements for the development Higher Psychological Functions. According to Vygotsky:

**Именно с помощью выявляемых задач, с помощью возникающей и стимулирующей потребности, с помощью расставляемых перед подростком целей окружающая его социальная среда побуждает и вынуждает подростка сделать этот решительный шаг в развитии своего мышления.**

It is with the help of the problems, with the help of emerging and stimulating needs, and goals, that the social milieu encourages to and makes the teen-ager take this crucial step [forming concepts] in the development of his or her thinking (Vygotsky, 1996a, p. 132)

Thus, the driving force which starts the process of the development of a maturing mechanism of behavior, isn't "hidden" inside the teen-ager, but exists outside him.

Vygotsky writes the following in this respect:

**...выявляемые социальной средой перед созревающим подростком задачи, связанные с вращением его в культурную, профессиональную и общественную жизнь взрослых, является действительно крайне существенным функциональным моментом, указывающим снова и снова на взаимную обусловленность, на органическую связанность и внутреннее единство моментов содержания и формы в развитии мышления**

...the problems set for the maturing teen-ager by the social milieu and aimed at facilitating his adaptation to the cultural, professional and social life of adults are indeed a very important functional moment revealing again and again mutual and fundamental dependence and inner unity of form and content in the development of thinking. (Vygotsky, 1996a, p. 132)

These statements indicate the importance of the functional role of the socio-cultural milieu or the role of the social environment [социальная среда] in the development of the functional aspect of concepts. Vygotsky (1996a) writes, that the Higher Psychological Functions of the teen-ager do not develop to the full and do not reach the highest stages if the social environment neither sets certain problems and puts

forward new requirements nor encourages and inspires the teen-ager to develop concepts. Thus, it is within the social environment that the functional elements “are born”. Then, the social environment “pushes” them into the world to further develop along the trajectory of word meanings.

To fully understand this process, i.e. how the social environment stimulates children’s problem-solving abilities, it is necessary to note that Vygotsky interprets the social environment “as a total combination of human relations” (Vygotsky, 1996b, p. 57), which he understands as mostly *verbal relations* (since in Vygotsky’s view, words along with other signs regulate people’s behavior). For Vygotsky, it is the language of the social environment which stimulates the development of the functional elements along the trajectory of word meaning. Vygotsky writes that the social situation within the social environment (social situation = context = social environment) creates a problem for the child to solve. The problem is created in the course of children’s communication with other people by means of language, i.e. language/sense→social environment/situation→problem→language/meaning (Vygotsky, 1996b). In his book *Pedagogical Psychology* Vygotsky writes the following:

**...ребенок вступает в отношения с ситуацией не непосредственно, но через другое лицо. Таким образом, мы приходим к выводу, что роль речи, выделенная нами, как особый момент в организации практического поведения ребенка, является решающей для того, чтобы понять не только структуру поведения, но и его генезис: речь стоит в самом начале развития и становится его наиболее важным, решающим фактором.**

... the child’s encounters the situation not directly, but through another person. Thus, we can come to the conclusion, that the role of the speech, which we understand as the most significant moment in the organization of children’s practical behavior, is crucial for understanding not only the structure of the behavior, but its origin as well: from the very beginning children’s development depends on speech which becomes its most important and decisive factor. (Vygotsky, 1996b, p. 416)

Thus, Vygotsky understands social milieu as a *verbal environment*.

## Summary and Conclusions

In this chapter I discussed the idea of the functional aspect of concept formation within Vygotsky's theory. I introduced and analyzed the main elements of his functional criteria (*motivation, problem/needs and goal*). I examined the relationships between the functional elements and the meaning of the word, the former being the *subordinate components* within the development of the word meaning. The analysis of the role of the functional elements within the concept, resulted in defining the place of the practical/pragmatic aspect represented by the functional elements in the process of concept/consciousness development, is the most important issue raised in this chapter. Thus, the functional elements play though a significant, but *auxiliary role* in concept maturation, the main role is played by the word meaning. Defining the place of the functional elements within the development of the word, allows me to reconcile Vygotsky's theory of semiotic mediation with the empirical/practical aspect of thinking, represented by the functional criteria. Thus, the issue of whether Vygotsky's theory is based on the practical/pragmatic aspect or semiotic mediation of the word, should not be considered in terms of "black" and "white" ("whether... or"), but within a more flexible paradigm. This implies that we should not exclude from Vygotsky's theory either word meaning mediation or pragmatic aspect. Though the word/word meaning plays a leading role in concept development, both functional elements and the word meaning depend on each other and fulfill their own important "duties" and "responsibilities".



I also addressed the issue of what role the verbal socio-cultural environment plays in the development of the functional elements of children's concept formation. I showed the importance of the social milieu within the functional paradigm. In introducing the functional elements and describing the role of the social environment in developing children's concepts, I emphasized that according to Vygotsky, concepts can be developed only within a certain context. For Vygotsky, this context is a particular verbal environment or situation which provokes a child to look for solutions to problems in the process of thinking and developing concepts. Thus, I put the emphasis on the fact, that Vygotsky attaches great importance to the *situated approach* in children's concept development.

Therefore, the two questions mentioned at the beginning of the chapter could be answered in the following way:

*1) What are the main functional elements in Vygotsky's theory?*

The main functional elements in Vygotsky's theory are motivation, problem/needs and goal. The development of motivation, problems, needs and goals depends on such personal characteristics of children as their interests, attitudes, choices, preferences, desires.

*2) What is the place of the functional elements in children's concept/consciousness development?*

According to Vygotsky, motivation, problem/needs or goal cannot provide a genetic explanation of concept formation, i.e. their role is diminished to being subordinate (though necessary) elements of the process of approaching children's

understanding of reality to thinking in concepts. That is, the goal by itself as well as other functional elements cannot provide and regulate a goal-directed activity. Stimulation of children's motivation, needs, desires and choices or solving a goal-directed problem is provided and regulated by the word meanings or thinking in concepts. Thus, the place of the functional elements is *within* the trajectory of word meaning, between the external and internal forms of the word.

#### Research question 1.1.

*What is the role of the functional criteria in Vygotsky's theory of semiotic mediation?*

This question could have the following answer:

I have argued that the functional (=pragmatic) criteria plays an important, but at the same time a subordinate role in children's concept development. The main role belongs to the semiotic/word meaning mediation, which regulates children's motivated thinking and reconstructs it (thinking) in the goal directed process of problem solving. The functional criteria is a necessary, but constituent element in the process of creating word meaning through word meanings. Thus, within Vygotsky's theory on semiotic mediation, the functional criteria is mediated by the word meaning.

## Chapter Four

### Concepts of Regulation, Development and ZPD in the Light of the Functional Criteria. Educational Perspective

The purpose of this chapter is to examine theoretically two important concepts in Vygotsky's theory, the concept of development/zone of proximal development [*зона ближайшего развития*] and the concept of regulation [*регуляция*] from the perspective of the functional criteria, which I have presented in chapter three. This examination is made within an educational context with the aim of preparing the ground for my inquiry into teaching English as a second language.

In examining the two interrelated concepts (concept of regulation and development/ZPD) within Vygotsky's theory, I tease them apart and analyze them from different perspectives. The functional perspective plays a major role in this inquiry and allows me have a deeper, broader look at the concept of regulation, semantic structure of the word, the zone of proximal development (ZPD) and relations between them. Analyzing the concept of ZPD from the perspective of the measure of generality (which is defined in this chapter in the section *Mini-ZPDs within the Levels of Generalizations*), makes it possible to interpret the zone of proximal development within the system of generalizations. It provides an opportunity to have another look at education and instruction as the necessary condition of children's systematic development.

In this chapter I address the following questions:

1) *What are the relations between the concept of regulation, functional elements and consciousness?*

2) *What is the symbolic place of the ZPD within the semantic structure of the word and functional criteria?*

3) *What could be the characteristics of the developmental pattern of the ZPD within the semantic structure of the word?*

4) *What impact could the functional criteria have on the interpretation of the ZPD?*

5) *What impact could the measure of generality have on the interpretation of the ZPD?*

6) *What conclusions could be made with respect to the word regulation, measure of generality and functional criteria within an educational perspective?*

7) *What are the relations between the three types of regulation and semantic structure of the word?*

I also answer research question 1.2 of the thesis:

*How can Vygotsky's major concepts of regulation and development/ZPD within the functional criteria be interpreted from an educational perspective?*

## Regulation in the Light of the Functional Criteria of the Word and Consciousness

According to Vygotsky, the development of attention and memory are necessary conditions for the formation of the concepts, but the latter can't be reduced to the former. In the translated version of Vygotsky's *Thought and Language*, he writes that "concept formation is the result of such a complex activity, in which all basic intellectual functions take part. This process cannot, therefore be reduced either to association..., imagery and judgment... or determining tendencies" (Vygotsky, 1987, p. 106). As I argue in chapter three, it is

**функциональное употребление знака или слова в качестве средства, с помощью которого подросток подчиняет своей власти свои собственные психологические операции, с помощью которых он овладевает течением собственных психологических процессов и направляет их деятельность на разрешение стоящей перед ним задачи.**

the functional usage of the sign or word as a means with the help of which a teenager directs his own psychological operations, with the help of which he controls the development of his own psychological processes, and channel their activity toward the solution of the problem confronting him. (Vygotsky, 1996a, p. 131).

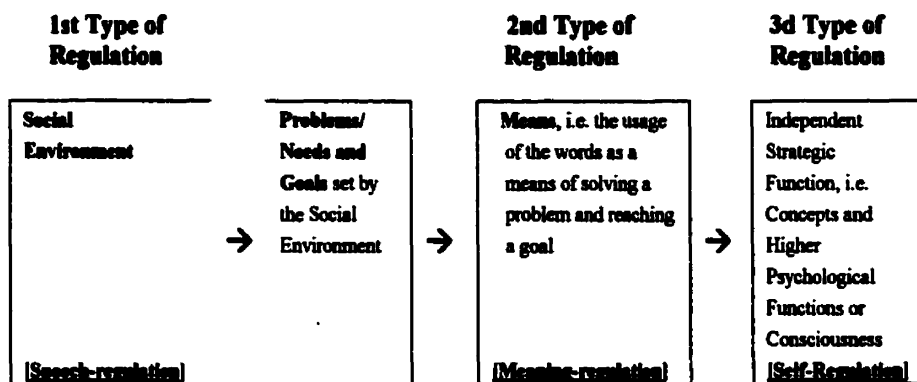
Thus, the central place in the development of concepts is the usage of the sign or word as a means with the help of which the child regulates his own psychological operations, masters the flow of his own psychological processes and directs their activity towards the solution of a problem. Vygotsky also writes that "the child's communication with the help of speech is directly connected with the differentiation of the word meanings in his/her speech and the awareness of these meanings" [**осознание речи с помощью речи находится в непосредственной связи с дифференциацией словесных значений в его речи и их осознанием**] (Vygotsky, 1996a, p. 313).

If words regulate the development of concepts, it could be also said that the functional elements of the word, being its necessary components, also participate in regulating concept development. It would be also correct to say that words with their functional elements regulate the development of consciousness, since the word “concept” is a synonym of “consciousness”. According to the Webster’s Dictionary, a concept is “an idea of something formed by mentally combining all its characteristics or particulars” and “a directly conceived or intuited object of thought” (Webster’s Dictionary, 1989, p. 304).

Vygotsky writes the following concerning the dependence of concept/ consciousness development on the usage of the words: “the process of concept formation of is based on the mastering by people of their own psychological processes with the help of the functional usage of the word or sign” [«Процесс образования понятий предполагает в качестве своей основной и центральной части овладение течением собственных психологических процессов с помощью функционального употребления слова или знака»] (Vygotsky, 1996a, p. 133). Thus, the main functional elements of the word (motivation, problem/needs, goal) play an important role in the process of development of Higher Psychological Functions and attaining by children their optimum level of regulation - *self-regulation*. This process could be described in the following way: in the beginning the functional elements are influenced or regulated by the social environment, as I have stated in chapter three. In that chapter I have also argued, that Vygotsky understands the social environment as a communicative situation in which a major role is played by the speech phenomenon of the word (or the sense of the word as opposed to its meaning), which serves as a “building material” for the formation of

functional elements. Thus, the first type of regulation of children's concept development could be called *speech-regulation*. On his/her way from speech-regulation to the optimum 3d type of regulation, i.e. self-regulation and concept/consciousness formation, the child goes through another type of regulation provided by the teacher/adult linguistic intervention, i.e. by word *meanings*. This second type of regulation could be called *meaning-regulation*. This type of regulation accounts for the child's ability to carry out certain tasks with appropriate linguistically mediated assistance from teachers/adults or capable peers. Thus, children's development goes through three levels of word regulation. I conceptualize them in my thesis as speech-regulation, meaning-regulation and self-regulation. I illustrate the place of the functional elements within the three types of word regulation in Figure 5.

*From:*



*To:*

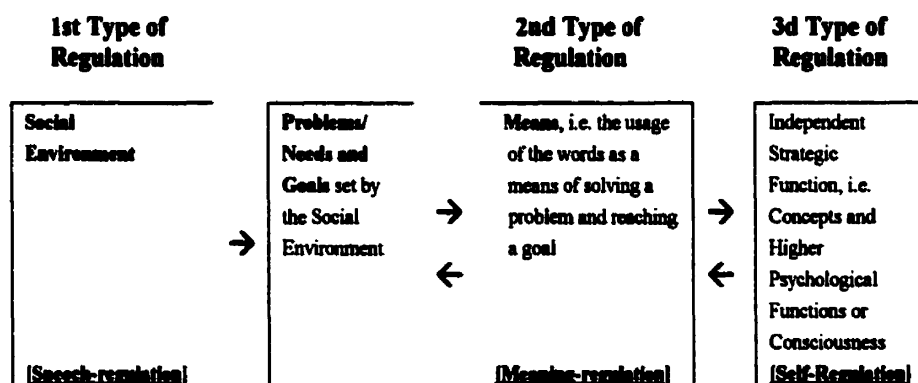


Figure 5

The place of the functional elements within three types of regulation

Figure 5 can be interpreted in the following way: the verbal social environment/speech- regulation sets forth or regulates (under the influence of the speech phenomenon of the word) motives, problems/needs and goals which can be solved or satisfied along the trajectory of the development of word meanings (and under the influence of the meaning of the word), i.e. by means of words through the cooperation



with teachers/adults. Further development of the word regulated functional elements leads to the formation of the highest regulatory function, i.e. the function of self-regulation. The end result of the developing of self-regulation is the formation of concepts/consciousness. At this point, a child's concept development finishes its movement along the trajectory of meaning and becomes part of the thinking/intellectual phenomenon of the word. Thus, for Vygotsky, Higher Psychological Functions (i.e. consciousness or thinking/intellectual phenomenon) are at the same time the highest form of regulation. This conclusion is in line with the understanding of consciousness in Russia. In Russian psychology the concept of regulation is part and parcel of the concept of consciousness. According to the Russian Psychological Dictionary "consciousness is the highest level of psychological reflection and self-regulation, inherent only in humans due to their social and historic nature of development" [*«высший уровень психического отражения и саморегуляции, присущий только человеку как общественно-историческому существу»*] (Petrovsky & Yaroshevsky, 1990, p. 368). Thus, mature concept, consciousness and regulation are the same phenomenon. It implies that a developed concept always reflects a high level of consciousness and self-regulation.

As I have shown it in Figure 5, a very important role on the child's way to developing consciousness and achieving the highest level of self-regulation is played by meaning-regulation. This type of regulation "does the hardest job" in the process of transformation of children's Elementary Psychological Functions into their Higher Psychological Functions. Meaning-regulation like self-regulation, refers to the thinking/intellectual phenomenon of the word or word meaning, since self-regulation is the highest level of the development of the meaning-regulation. The crucial role of

children's self-regulation in attaining their meaning-regulation could be of a special importance for investigating Vygotsky's theory from an educational perspective. It brings us close to yet another important Vygotskian concept - the concept of development and the zone of proximal development.

### **Concept of Development/ZPD and Functional Criteria**

One of the main outcomes of Vygotsky's research on the concept of development is the zone of proximal development, which is based on the idea of the potential advantage of children's development in close cooperation with an adult/teacher or more capable peer. The concept of development has also a central place in Vygotsky's theory in general, which makes it practically impossible to analyze any of his concepts without referring to the concept of development.

At the beginning of *Thought and Language*, Vygotsky makes one of the first references to the concept of development with regard to his imaginary argument with Jean Piaget (1989-1980), a famous Swiss psychologist. Though Piaget's works contributed to Vygotsky's theory, the two scholars looked differently at many things. One of the major differences between Vygotsky and Piaget is how they understood the role of language in children's development. While Piaget assigned to language a necessary but subsidiary role in the process of children's concept/consciousness formation, Vygotsky assumed it has a major determining role. Their different approach to the role of the language is reflected in how they conceptualized the concept of development. According to Piaget, there is no necessary connection between the child's egocentric speech and

his/her inner speech or thinking, and thinking substitutes egocentric speech (Piaget, 1959). According to Vygotsky, egocentric speech doesn't disappear after the child starts thinking verbally, but *develops* into inner speech. Vygotsky's interpretation of the "fate" of egocentric speech lets him provide a genetic explanation of the development of the inner speech or verbal thinking. For Vygotsky, the developmental approach to psychology is a necessary condition, since "development is the key to the understanding of any High Psychological Function" [**«развитие является ключом к пониманию всякой высшей формы»**] (Vygotsky, 1996a, p. 155).

Vygotsky's understanding of verbal thinking as not a biological, but socio-cultural and historical form of behavior, leads to yet another kind of development analyzed by Vygotsky - *socio-cultural-historical development* of people's thinking and consciousness. Searching the roots of children's concept development in socio-cultural-historical forms of thinking is one of the most important discoveries made by Vygotsky. In Vygotsky's view, "the problem of thinking and speech crosses methodological boundaries of natural sciences and becomes a central problem of historical psychology of people, i.e. social psychology" [**проблема мышления и речи перерастает методологические границы естествознания и превращается в центральную проблему исторической психологии человека, т.е. социальной психологии**] (Vygotsky, 1996a, p. 116). The analysis of the three types of regulation of children's development made in my thesis, schematically shows that from the very beginning the child's development is directly regulated by the communicative situations of the verbal environment, i.e. by language. It is the verbal communication, which reflects the socio-historical forms of thinking, "registered" in a socio-cultural sign - language. According to Vygotsky's main

law of the development of Higher Psychological Functions, these socio-cultural-historical forms of thinking are transferred from the intramental plane of the social situation to the intermental plane of children's consciousness and their verbal forms of thinking or inner speech in particular contexts of situation.

The goal of this part of the chapter is to analyze the concept of development mostly with respect to the ZPD. That is why, the concepts of development and ZPD are united in this chapter as development/ZPD. The end-result of this inquiry within Vygotsky's theory is to provide some conclusions from an educational perspective concerning the development/ZPD and the concept of regulation in the light of the functional criteria.

### ZPD and Word

From an educational perspective, it seems interesting to look at concept development within the semantic structure of the word which comprises a nominative function or external form of the word (speech phenomenon/sense of the word) and a system of generalizations or internal form of the word (thinking/intellectual phenomenon/meaning of the word). The word sense reflects children's spontaneous knowledge of words within a functional paradigm. The spontaneous knowledge of children's words is called by Vygotsky spontaneous/everyday concepts [~~знательные~~ ~~понятия~~]. The meaning of the word represents scientific concepts, i.e. knowledge within the socio-cultural context, provided by the teacher/adult through instruction and cooperation. Theoretically, it could be suggested that the developmental path between the

two forms of the word is reflected in the two interpretations of the zone of proximal development, i.e. scaffolding and socio-cultural. According to the scaffolding interpretation, the zone of proximal development

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. (Vygotsky, 1978, p. 86)

According to the socio-cultural interpretation, the zone of proximal development is the distance between the cultural knowledge provided by the socio-historical context made assessable through instruction - and the everyday experience of individuals or the distance between the understood knowledge as provided by instruction, and active knowledge, as owned by individuals" (Davydov and Markova, 1983).

Thus, the ZPD is the distance between the child's active knowledge represented by everyday concepts, which develop in the speech phenomenon of the word (sense of the word), and the knowledge assessable through teachers'/adults' assistance and instruction, represented by scientific concepts, which develop in the internal form of the word (meaning of the word). The above conclusion allows me to suggest that schematically *the zone of proximal development is the distance between the meaning and the sense of the word*, as I illustrate it in Figure 6.

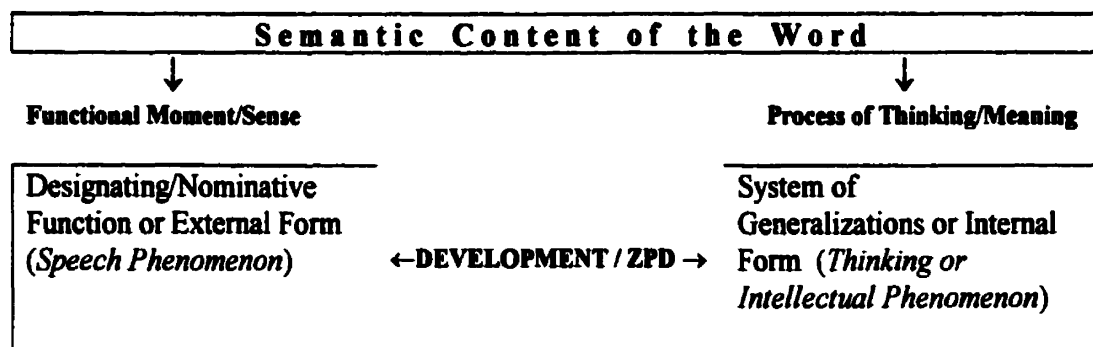


Figure 6

Schematic place of development/ZPD within the semantic content of the word

In his book *Thought and Language* Vygotsky makes an analogy between the zone of proximal development and the developmental pattern of spontaneous and scientific concepts which runs between the internal and external forms of the word. This analogy could serve as a proof of the previous suggestion that the symbolic place of the ZPD could be between these two forms of the word. Vygotsky describes the development of spontaneous and scientific concepts between the speech and thinking phenomena (i.e. between the external and internal forms of the word) in this way:

Развитие научных понятий начинается в сфере осознанности и произвольности и продолжается далее, прорастая вниз в сферу личного опыта и конкретности. Развитие спонтанных понятий начинается в сфере конкретности и эмпирии и движется в направлении к высшим свойствам понятий: осознанности и произвольности. Связь между развитием этих двух противоположно направленных линий с несомненностью обнаруживает свою истинную природу: это есть связь зоны ближайшего развития и актуального уровня развития.

Development of scientific concepts begins in the realm of thinking and consciousness and continues its path into the realm of personal experience and the concrete. Development of spontaneous concepts begins in the realm of concrete and empirical practice and moves on in the direction of the higher properties of concepts - thinking and consciousness. These two developing in opposite direction lines are undoubtedly related to each other in the same way as

the zone of the proximal development is related to the zone of actual development. (Vygotsky, 1996a, p. 264)

Thus, the trajectory of the development of scientific concepts lies between the thinking and consciousness, which refer to the meaning of the word, and personal experience and empirical practice, which refer to the sense of the word. If scientific and spontaneous concepts are related to each other in the same way as the zone of proximal development is related to the zone of actual development, it means that the developmental path of the ZPD coincides with the developmental path of scientific and spontaneous concepts and also develops between the meaning and the sense of the word. The analysis and schematic illustration of this conclusion is provided in the section *ZPD within the Functional Criteria* of this chapter.

### **“Between-Type” and “From-To” Type of Development**

Though the place of the zone of proximal development is schematically depicted as a trajectory between the meaning of the word (scientific concepts) and its sense (spontaneous concepts), it is important to note that the development of both scaffolding and socio-cultural interpretations of the ZPD is not a straight line effortlessly moving forward in linear fashion. On the contrary, spontaneous and scientific concepts develop in opposite directions and have complex relations. At the same time as it often happens with the two opposites, they complement each other.

The child could have spontaneous knowledge on everyday concepts and use them correctly in different life situations, but he/she may not be aware of his/her own act of thinking, i.e. how he/she perceives the concepts. For example, it is difficult for the child to explain how he/she understands such everyday concepts, as the words “brother”,

“milk”, “friend” though the child easily and correctly uses these words in everyday situations. As far as scientific concepts are concerned, the child understands them in a conscious way through instruction, but has difficulty in applying these concepts to real life situations.

Being a true “son” of his time, Vygotsky gives an example with the word “revolution”, which was popular in Russia in the thirties. Vygotsky writes that the child can explain this concept, but can’t fully understand and has difficulty in using it (Vygotsky, 1996a). As Vygotsky writes, “the weak points of spontaneous concepts... turn out to be the strong points of scientific concepts and vice versa” [*«то, в чем сильно научное понятие, ... оказывается слабой стороной житейского понятия»*] (Vygotsky, 1996a, p. 261). From the point of view of the complicated character of the developmental path within the semantic structure of the word, it is sooner a “between-type” development than the development “from - to”. It is only after accomplishing a complex and intricate pattern of the development *between* the sense and the meaning of the word, that it is possible for the child to eventually “cover the distance” *from* the external form of the word *to* its internal form, i.e. reach his/her optimal stage of concept development and self-regulation. That is, “from - to” development can be achieved only through accomplishing “between-type” development. Within an educational perspective, it is rather the complicated qualitative characteristics of the “between-type” developmental pattern which are important, not the end-result with its quantitative criteria, since the latter entirely depends on the former.



Vygotsky emphasizes that the development of concepts is not a quantitative but a qualitative process. In Vygotsky's view, this process is

**новый принципиально отличный, качественно несводимый к любому количеству ассоциативных связей тип деятельности. основное отличие которого заключается в переходе от непосредственных интеллектуальных процессов к опосредствованным с помощью знаков операциям.**

a new, principally different, qualitatively not reduced to any quantity of associative connections type of activity. The main distinctive feature of this process is in the transition from direct intellectual processes to the sign mediated operations. (Vygotsky, 1996a, p. 133)

Here is an example of the contradictory, complex and at the same time complimentary and harmonious "between-type" development of the ZPD within the semantic structure of the word that Vygotsky provides in *Thought and Language*:

**Таким образом, мысль и слово оказываются с самого начала вовсе не сроднимыми по одному образцу. В известном смысле можно сказать, что между ними существует скорее противоречие, чем согласованность. Речь по своему строению не представляет собой простого зеркального отражения строения мысли. Поэтому она не может налезать на мысль, как готовое платье. Речь не служит выражением готовой мысли. Мысль, превращаясь в речь, перестраивается и изменяется. Мысль не выражается, но совершается в слове. Поэтому противоположно направленные процессы развития смысловой и звуковой стороны речи образуют полнейшее единство именно в силу своей противоположной направленности.**

Thus, from the very beginning thought and word have major differences. It could be even said that they are sooner in opposition to each other than in harmony. The structure of speech is not a mere reflection of the structure of thought. The speech can not be put on the thought like a dress. Speech doesn't reflect a ready-made thought. When the thought becomes the speech, it undergoes reconstruction and changes. The *thought* is not expressed by the word but made within the *word*. That is why the opposite processes of the development of intellectual and speech phenomena become an indivisible entity just due to their opposite direction. (Vygotsky, 1996a, pp. 307-308)

The "thought" in this quotation refers to the thinking/intellectual phenomena or internal form of the word. The "word" refers to the speech phenomena or external form of the word. While the "thought" reflects the meaning of the concept, the "word" reflects its sense.

The content of children's "between-type" development is a mental conflict between the "word" and the "thought", or between the meanings of the words and the senses children derive from these meanings through their practical application. It is at the end of the "between-type" development along the trajectory of word meaning that objective "inflexible" meanings are reconciled with subjective "personal" senses.

Thus, the "between-type" development could be understood as "mutual continuous adaptation", upon the completion of which it is possible for the child to reach his/her highest developmental level. That is, accomplish "from-to" development.

### ZPD within the Functional Criteria

It could be suggested that in the light of the functional criteria, the content of the complex developmental path of the ZPD within the semantic structure of the word is represented by the trajectory of meaning and functional elements, i.e. motivation, reflecting individuals' needs problems, and goals. As I have illustrated in Figure 4 in chapter three, the trajectory of meaning with its functional elements runs between the external form/sense of the word which represents the functional moment and is called by Vygotsky "word" [слово], and its internal form/meaning, which represents the process of thinking and is called by Vygotsky "thought" [мысль]. On the other hand, the schematic place of ZPD is also between the sense and meaning of the word (i.e. between "word" and "thought"). It means that the trajectory of the ZPD within the word coincides with the trajectory of meaning in its functional interpretation, as I illustrate it in Figure 7.

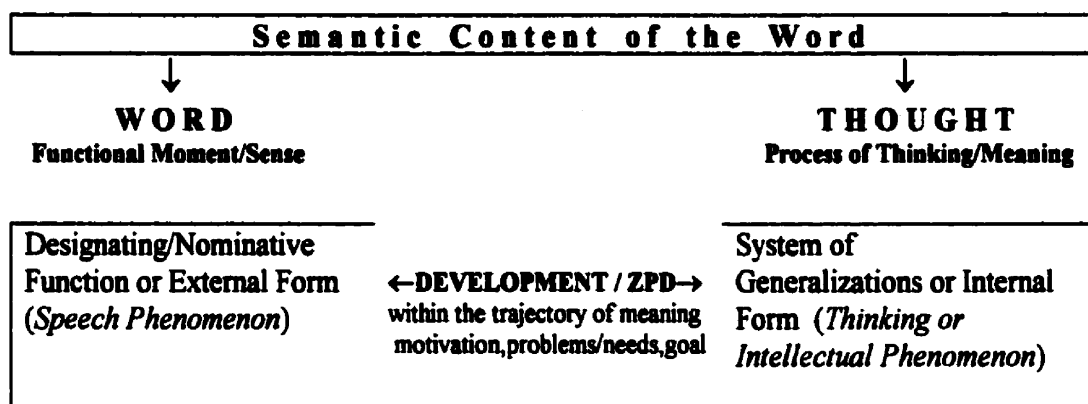


Figure 7

Development/ZPD within the semantic content of the word in the light  
of the functional criteria

This is what Vygotsky writes about the complexity of the development/ZPD  
between “thought”/meaning or internal form of the word and “word”/sense or external  
form of the word, in reference to the functional criteria of the trajectory of meaning:

Отношение мысли к слову есть прежде всего не вещь, а процесс, это отношение есть движение от мысли к слову и обратно - от слова к мысли. Это отношение представляется в свете психологического анализа как развивающийся процесс, который проходит через ряд фаз и стадий, претерпевая все те изменения, которые по своим самым существенным признакам могут быть названы развитием в собственном смысле этого слова. Разумеется, это не возрастное развитие, а функциональное, но движение самого процесса мышления от мысли к слову есть развитие. Мысль не выражается в слове, но совершается в слове... Всякая мысль стремится соединить что-то с чем-то, установить отношение между чем-то и чем-то. Всякая мысль имеет движение, течение, развертывание, одним словом, мысль выполняет какую-то функцию, какую-то работу, решает какую-то задачу. Это течение мысли совершается как внутреннее движение через целый ряд планов, как переход мысли в слово и слова в мысль.

The word is related to the thought not like objects are related to each other. The relation between the word and the thought is a process. This relation is a movement from the thought to the word and vice versa - from the word to the thought. In the light of the psychological analysis this relation could be described as a developmental process, which undergoes a number of phases and stages, which could be characterized as development in the very sense of this word. Of course, it isn't an age but a functional development. Nevertheless, the advancement of the process of thinking into the direction of the word is a

development. The thought is not expressed by the word but made within the word... Any thought tries to connect something with something, to establish relations between something and something. Any thought unfolds in a movement or flow - in other words, any thought fulfills a work, solves a task. This flow of the thought is an inner movement, which develops through a number of stages, such a transition of the thought into the word and the word into the thought. (Vygotsky, 1996a, p. 306)

With respect to the functional criteria, the development of the word between the sense and meaning, could be viewed and analyzed as the unfolding of problems/needs and goals within the trajectory of meaning. From an educational perspective, it could be understood in the following way: the child's concept/consciousness development can be fulfilled and reach its highest stage with the help of the teacher through the usage of language/ words; the teacher's words (internal form/meaning of the word) play the role of analytical units of concept/consciousness development, which shape children's developmental trajectory of meaning (through the interpretation of teacher's words). The maturation of the word regulated trajectory of meaning is based on the development of children's motivation, problems/needs and goals.

### Functional Interpretation of ZPD

My analysis of the ZPD in the light of the functional criteria of the developmental trajectory of meaning could lead to the following conclusion: *the zone of proximal development is the difference between the child's understanding of his/her motivation, needs, problems, goals, etc. as provided by instruction through the linguistic intervention of the teacher/adult and the child's active spontaneous understanding.* This way of interpreting the zone of proximal development makes it necessary to review the content and purpose of teachers' instruction. Their instruction within the ZPD should be

based on an individual approach to teaching along with studying children's personalities. This accounts for the fact that children's personalities play a major role in the development and maturation of the functional elements. It should be a *collaboration* in the true sense of the word, between the child and teacher, based on *long-term results* and guided children's qualitative "between-type" development. According to Vygotsky, it is only through analyzing and comparing various stages of the long-term process of children's maturation that it seems possible to understand different patterns of children's development.

### **Development/ZPD, Word Regulation and Measure of Generality**

This part of the chapter is connected to Vygotsky's notion of the levels of generalizations, which reach their highest point in the internal form/meaning of the word which is called the system of generalizations, and refers to the thinking/intellectual phenomenon of the word or consciousness. For Vygotsky, it is only children's ability to generalize word meanings as well as operate with abstract meanings which could be considered a purely human intellectual phenomenon connected to High Psychological Functions. In Vygotsky's view, functional practical thinking which is tied to concrete objects along with children's needs, problems and goals, is connected to the Elementary Psychological Functions. Children's ability to generalize matures within the system of generalizations which develops within the word along the trajectory of meaning "on its way" from external form of the word to its internal form. Thus, before the child masters the system of generalizations, his/her concepts are immature and he/she goes through

various developmental stages, discovering and rediscovering new meanings of familiar words:

**...в момент усвоения нового слова процесс развития соответствующего понятия не заканчивается, а только начинается. В момент первоначального усвоения новое слово стоит не в конце, а в начале своего развития. Оно является всегда в этот период незрелым словом. Постепенное внутреннее развитие его значения приводит к созреванию самого слова. Как говорит Толстой, «слово почти всегда готово, когда готово понятие», в то время как обычно полагали, что понятие почти всегда готово, когда готово слово.**

**...at the moment of mastering a new word, the process of the development of a given concept is not over, but on the contrary, it just starts. The child's first encounter with a new word means not the end, but the beginning of its development. In the beginning it is always an immature word. Gradual inner development of its meaning leads to the maturation of the word... As Tolstoy says, 'the word is almost always ready, when the concept is ready' despite the common belief that the concept is always ready when the word is ready. (Vygotsky, 1996a, p. 295)**

Constant development of children's word meaning accounts for the fact that children's perceptions of the world more or less differ from adults', depending on the development of their level of generalizations or consciousness, i.e. children think in immature concepts, as Vygotsky calls them. That is why the same words have different meanings for children and adults. According to Vygotsky, meaning "reflects a certain level of generalization" [*означает специфическую меру общности*] (Vygotsky, 1996a, p. 277) and children's ability to think abstractly. Goal-directed functional thinking within children's needs and problems is called by Vygotsky not "meaning", but "sense" (Figure 7, chapter four). Vygotsky analyzes the above "relations of generalization with regard to other meanings" when he introduces the notion of the levels or measure of generality:

**If we imagine the totality of concepts as distributed over the surface of a globe, the location of every concept may be defined by means of a system of coordinates, corresponding to longitude and latitude in geography. One of these**

coordinates will indicate the location of a concept between the extremes of maximally generalized abstract conceptualization and the immediate sensory grasp of an object - i.e. its degree of concretization and abstraction. The second coordinate will represent the objective reference of the concept, the locus within reality to which it applies. (Vygotsky, 1987, p. 199)

Then Vygotsky continues:

Долгота и широта понятия вместе должны дать исчерпывающее представление о природе понятия с точки зрения обоих моментов - заключенного в нем акта мысли и представленного в нем предмета. Тем самым они должны заключать в себе узел всех отношений общности, существующих в сфере данного понятия как по горизонтали, так и по вертикали... Это место понятия в системе всех понятий, определяемое его долготой и широтой, этот узел, содержащийся в понимании его отношений с другими понятиями, мы называем мерой общности данного понятия

The longitude and latitude of the concept taken together give the full idea about the nature of the concept from the point of view of both moments - the act of thinking and the object represented in the concept. Thus, the two coordinates comprise the junction of all the variety of relations of generality, represented by the given concept at the point of intersection of the longitude and latitude... This place of the concept in the system of all the concepts, determined by its longitude and latitude, this junction of perceiving concept's relation to other concepts, we call the measure of generality of the given concept. (Vygotsky, 1996a, p. 274)

Thus, the whole developmental path of children depends on their level of generalizations. This connected to the system of generalizations criterion of children's development makes it possible to have another look at their ZPD and the regulatory function of the word.

### Mini ZPDs within the Levels of Generalizations

The above analysis of the system of generalizations and children's development allows me to assume that the intersection of the longitude and latitude which represents a mature concept is in the middle of the imaginary globe or circle. This assumption may lead to the following conclusion: *the distance between any other intersections of the two*

*coordinates around the middle of the circle and the central interjection could be interpreted as the mini zone of proximal development of the process of generalization of immature concepts.* Thus, before the child reaches the system of generalizations represented in the internal form of the word, i.e. before children cover their so-called main ZPD, they go through a lot of other mini-ZPDs within the levels of generalizations. For example, if a child knows the word “rose”, (step 1) he/she calls all flowers “rose, i.e. he/she doesn’t differentiate among roses, tulips and other flowers. It means that the child doesn’t understand yet the relations of generalizations between concepts. Later the child reaches a higher level of generalizations and (step 2) starts to differentiate flowers according to their color, giving different names to the flowers with different colors (all red flowers are roses, all yellow flowers are tulips, etc.). At the next level of generalization (step 3) the child sees the difference among flowers which have different shape, etc. In the end, the child reaches such level of generalizations that (step 4) the meaning of the word he uses fully corresponds to the object which this word represents, i.e. when the child says “rose” he/she means rose and not just any flower, and when the child says “flower” he/she understands that this word represents all kinds of flowers which can have different fragrance, shape, color, etc. This is how through developing their system of generalizations children’s immature concepts become more and more mature. Each new step which the child makes in his/her attempt to approach immature concepts to the mature ones (steps 1,2,3..) could be considered as a mini-ZPD. Step 4 is the sum of those many mini-ZPDs. The necessary condition for children’s succeeding in



moving forward within the system of generalizations is the linguistic mediation of the teacher, adult or more experienced peer.

According to the previous discussion, the trajectory of meaning of the semantic structure of the word “paves its way” to the internal form/meaning of the word, i.e. to the mature concept or consciousness, *within the system of generalizations*. It is the levels of generalizations the child reaches while going through his/her stages of development which regulate and shape the development of the functional elements along the trajectory of meaning. It is due to reaching a higher level of generalization that the child takes one more step in the development of his/her concept formation and functional elements. In other words, the very trajectory of meaning with its functional elements develops along the longitudes and latitudes of the system of generalizations. I made this assumption since it is an inevitable conclusion from Vygotsky’s theory, which posits that

**любая операция, как сравнение, установление различия и тождества двух мыслей, всякое суждение и умозаключение предполагают определенное структурное движение по сетке линий долготы и широты понятий... Поэтому мера общности с функциональной стороны определяет всю совокупность возможных операций мысли с данным понятием**

such mental acts as comparison, identifying the difference and equivalence between two thoughts, *any opinion or judgment* presuppose a certain structural movement along the network of the longitudes and latitudes... From the functional point of view, the measure of generality determines all the total combination of acts of thinking regarding the given concept.  
(Vygotsky, 1996a, p. 276)

Thus, the trajectory of meaning of the ZPD with its functional elements reflects a certain level of generalizations.

## **Implications for School Curriculum: Theoretical Perspective**

To draw some conclusions from the previous sections for the development of school curricula, I will continue to analyze the regulatory function of the word, its functional elements and system of generalizations. This analysis combined with the investigations on Vygotsky's major concepts made in this chapter, can have a direct influence on and the implications for the research on ESL teaching and learning within Vygotskian Schools of Thought in Russia and abroad.

### **Education and Language**

To analyze the role of education in children's concept/consciousness development and speaking, I sum up some major steps of my inquiry into Vygotsky's theory concerning the regulatory function of the word, its functional elements and system of generalizations.

When I analyzed the semantic structure of the word, I showed that children's concept development and the development of their functional elements are unfolding along the trajectory of meaning, regulated by the thinking/intellectual phenomenon of the word. It is the word meaning that stimulates children's concept development and the development of their functional elements. Then, the first question is: *What speeds up children's advancement along the trajectory of meaning or children's concept/consciousness development?* From the functional point of view, it is the development of *functional elements*, i.e. children's problem-solving abilities which they employ to reach their goals. It's through settling the conflicts of children's motives,

choices, attitudes, desires, needs, etc., that it becomes possible to promote their development and lift the child to a new developmental stage within its system of generalizations, then on the next one until he/she develops a mature concept and acquires a conscious approach to his/her understanding of the world. Thus, the development of children's functional elements, or children's problem-solving abilities, speeds up the development of the trajectory of children's word meaning, i.e.

[functional elements] → [meaning]. On the other hand, it is the word meaning which regulates the development of concepts and functional elements, as it has been analyzed before, i.e. [meaning] → [functional elements].

The answer to the question may be that the word meaning speeds up/regulates the development of the functional elements, which speed up the development of the word meaning. This could be put in another way: the word meaning speeds up/regulates children's concept/consciousness development with the help of the word-regulated functional elements, i.e. word meaning/language stimulates the development of the word meaning/language with the help of word-regulated functional elements -

[meaning] → [functional elements] → [meaning] OR language meaning - functional elements - language meaning.

This raises a second question: *How could meaning-functional elements-meaning-unit be interpreted in the context of three types of regulation and semantic structure of the word?*

As I have analyzed it in this chapter, language and words regulate children's concept/consciousness development and the functional elements (children's problem-

solving abilities) twice. First, the child is regulated by the speech-regulation, then - by the meaning-regulation before he/she reaches the highest level of regulation, i.e. self-regulation. The social environment or sense-regulation, sets forth and regulates by means of words the speech phenomena of the word, or the functional elements of the word. The speech phenomena refers to the nominative function/the external form of the word. It regulates spontaneous/everyday concepts at the immature stage of the development of children's motivation, problems/needs and goals. Starting from this stage, children's functional elements spurred by the verbal social environment, continue their development under the regulation of words along the trajectory of meaning of the main ZPD within the mini-ZPDs of the system of generalizations. That is, word meanings regulate and stimulate children's problem-solving abilities at every stage of children's development. This type of regulation could be referred to the developmental path of the trajectory of meaning. It is called meaning-regulation, as it has been previously analyzed. The final product of the word regulation is a well-developed system of generalizations, Higher Psychological Functions/consciousness and mature concepts. This highest level of regulation is called self-regulation. Self-regulation could refer to the internal form of the word or intellectual phenomenon. Thus, the three types of regulation, i.e. speech-regulation, meaning-regulation and self-regulation could correspond to the external form of the word, its developmental trajectory of meaning and, finally, to the internal form of the word accordingly, as I illustrate it in Figure 8.

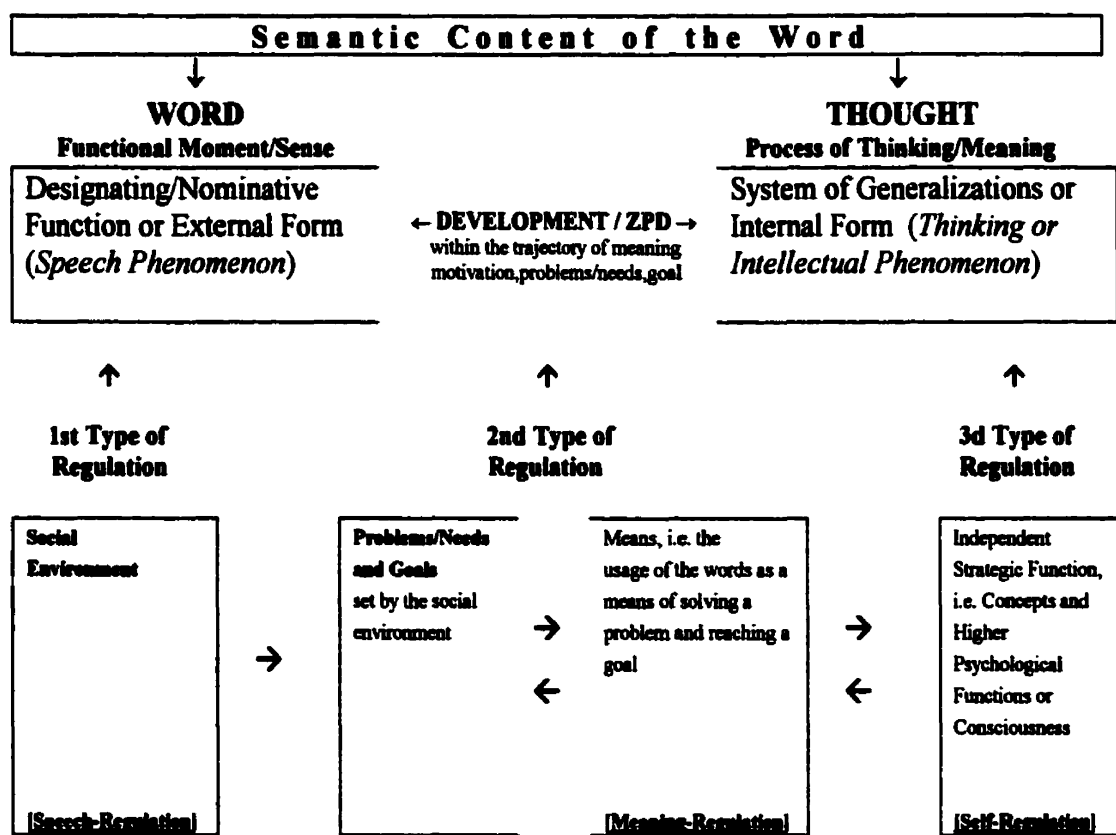


Figure 8

Development within the semantic content of the word as compared to the development within the three types of regulation

Figure 8 graphically shows how the context fits in within the semantic content of the word and three types of regulations. As I have analyzed in chapter three, it is the social environment which is understood as a verbal situation/context and within which such important contextual functional elements as problem/needs, motivation and goal “are born”. The development of these functional elements depends on children’s personal characteristics. Since it is clear from Figure 8 that the social environment is connected to

the functional moment/external form of the word, i.e. word sense, we can assume that within the semantic structure of the word the context fits in with the designating/nominative functions of the word.

For Vygotsky, it is the language of the social environment, i.e. the speech phenomena of the word and everyday concepts which regulate children's concept formation at the preschool age. (When children go to school, the unsystematic functional/practical social environment plays though an important, but still subordinate role, as I have analyzed in chapter three. The main role in children's concept formation at school is played by the systematic teachers' instruction combined with discussions among peers.) In other words, it is the pragmatic "communicative function of meanings" within the speech-regulation of the word with the help of which children first develop their problem-solving abilities or functional elements. Vygotsky writes in this respect:

**Понятие невозможно без слов, мышление в понятиях невозможно вне речевого мышления; новым, существенным, центральным моментом всего этого процесса, имеющим все основания рассматриваться как произвольная причина созревания понятий, является специфическое употребление слова, функциональное применение знака в качестве средства образования понятий**

A concept can't exist without words, and thinking in concepts can't exist beyond verbal thinking. The most important, new and central moment of this process that can be considered as a generative cause of concept maturation, is a specific use of the word, i.e. the functional use of the sign as a means of developing concepts. (Vygotsky, 1996a, p. 131)

Thus, Vygotsky's theory allows us to identify two types of language/word meanings that account for the language regulated children's concept development and the development of the functional elements. The first type of word meaning reflects children's thinking within the functional pragmatic aspect of the word which corresponds to its speech phenomenon, regulated by the verbal social environment. This meaning

could be called “speech-meaning”. “Speech-meaning” regulates children’s functional elements at preschool age, i.e. [speech meaning]→[functional elements]. The second type of meaning reflects children’s ability to think abstractly within the system of generalizations. This second type of meaning is called in the thesis “meaning”. It is maturation of children’s “meanings” with the assistance of teachers and peers, which leads to children’s thinking in concepts and self-regulation. “Meanings” are regulated by the teacher’s/adult’s instruction/words. Without the leading role of the “meaning” in children’s concept/consciousness development, it would be very difficult or impossible for the child to transfer from the practical/empirical thinking within the social environment and functional paradigm aimed at satisfying children’s everyday needs, to thinking in concepts. After the transition from the larger verbal social milieu into the systematic school environment, pragmatic “speech meanings” (everyday concepts) and stimulated by them functional elements, are governed by the “meanings” within the system of generalizations (scientific concepts), [meaning]→[speech meaning]→[functional elements]. While being regulated by the “meanings” within the system of generalizations, “speech meanings” continue to regulate the development of functional elements which, in their turn, regulate the development of “meaning”, as I have shown earlier, i.e. [meaning]→[speech meaning]→[functional elements]→[meaning]. The end result of this chain of regulated processes is well developed children’s “meaning” which results in attaining children’s self-regulation and independent verbal thinking in concepts. Thus, while “meaning” develops within the system of generalizations and reflects children’s level of Higher Psychological Functions, “speech meaning” develops within the unsystematic

empirical relations of the verbal social environment and reflects children's level of Elementary Psychological Functions, as I illustrate it in Figure 9.

HIGHER PSYCHOLOGICAL FUNCTIONS/CONSCIOUSNESS (Scientific Concepts and System of Generalizations)	ELEMENTARY PSYCHOLOGICAL FUNCTIONS (Spontaneous Concepts and Unsystematic Empirical Relations)	HIGHER PSYCHOLOGICAL FUNCTIONS/CONSCIOUSNESS (Scientific Concepts and System of Generalizations)
LANGUAGE/SIGN	FUNCTIONAL ELEMENTS	LANGUAGE/SIGN
[meaning] →	[speech meaning] → [functional elements]	→ [meaning]

Figure 9

### The content of language-through-language development

The question arises: *What provides for using the language as a tool for developing children's concepts and reaching the highest levels of children's zones of proximal development through attaining a higher level of generalizations?* It is a systematic approach to developing concepts as Vygotsky explains it in *Thought and Language*:

...Каждой структуре осознания соответствует своя специфическая система отношений осознания в силу того, что осознания различной структуры не могут не находиться в различной системе отношений осознания между собой. Следовательно, каждой структуре осознания соответствует и своя специфическая система возможных при данной структуре логических операций мышления... Вне системы понятия стоят в ином отношении к объекту, чем когда они входят в определенную систему. Отношение слова «цветок» к предмету у ребенка, не знающего еще слов «роза», «фиалка», «лаванда», и у ребенка, знающего эти слова, оказывается совершенно иным. Вне системы в понятиях возможны только связи, устанавливаемые между самими предметами, т.е. эмпирические связи. Отсюда - господство логики действия и синкретических связей по впечатлению в раннем возрасте. Вместе с системой возникают отношения понятий к понятиям, опосредствованное отношение понятий к объектам через их отношение к другим понятиям, возникает всеобщее отношение понятий к объекту: в понятиях становятся возможными наэмпирические связи.

... Each generalization structure corresponds to its own system of relations of generality, since generalizations of different structures refer to different systems of relations of generalization. Thus, each generalization structure corresponds to its own specific structure of possible logical intellectual operations... Without the



system the concepts are in different relations to the object than when they are part of the system. If the child doesn't know the words "rose", "violet", "lily", he understands the relation of the word "flower" to the object in an absolutely different way as compared to the child who knows these words. Without the system there can be only those relations within the concepts, which are established between the objects, i.e. empirical relations. It accounts for the domination of the logic of action in the early childhood. The system provides for the relations of concepts to concepts, concepts to objects through concepts' relations to other concepts, it provides for a practically different relation of the concepts to the object: concepts provide for the relations which are above empirical. (Vygotsky, 1996a, p. 284)

Spontaneous or everyday concepts, represented in the external form/sense of the word, are not included into the system of generalizations. They develop within the speech phenomenon of the word, which is regulated by the verbal social environment. Scientific concepts, represented in the thinking/intellectual phenomenon of the word, are directly involved into systematic relations of the system of generalizations. Figure 9 graphically illustrates this idea. It shows that unsystematic spontaneous concepts within the sense of the word can be included into the systematic relations leading to a mature concept only under the regulation of scientific concepts within the meaning of the word.

There also arises a related question: *What provides for the development of the systematic relations in the process of children's concept maturation or how the systematic relations of the scientific concepts are introduced into the child's world of spontaneous/everyday concepts?* For Vygotsky, it is the *education, instruction, teaching* that promote children's development of the systematic relations between/among the concepts. It is the zone of the proximal development of the child along which he/she develops in collaboration with the teacher/adult, who introduces scientific concepts to the child through "the relations of generalization between concepts which are established in

the process of education” [«с помощью устанавливаемых в процессе обучения отношений общности между понятиями»] (Vygotsky, 1996a, p. 287). The above accounts for the fact that teacher’s instruction/language has a well-developed word meaning within the system of generalizations, which can regulate and stimulate the development of children’s immature “speech meanings” or elementary psychological functions, i.e. [meaning]→[speech meaning]→[functional elements]→[meaning].

### The Role of Instruction

As I have previously analyzed, the ZPD develops between the speech/word sense and intellectual phenomena/word meaning, representing spontaneous and scientific concepts accordingly, which develop in opposite directions. It has also been shown that they have major differences and complex interrelations. Their mutual harmony could be reached only over a period of time through a “hard work” under the guidance/instruction of the teacher/adult. That is, “the structure of speech is not a mere reflection of the structure of thought...the speech can’t be put on the thought like a ready-made dress...” and finally, “...the thought is not expressed in a word, but made within a word” (Vygotsky, 1996a, p. 308.). In an attempt to schematically reflect a complicated “between-type” concept development, the developmental arrow line along the trajectory of meaning *from* the external *to* the internal forms of the word has two tips in all the figures, pointing into opposite directions (←DEVELOPMENT / ZPD→). While the child is regulated by the instruction/teacher’s language and advances from the active spontaneous knowledge and empirical relations into the direction of the “meaning” of the word and scientific concepts (→), the teacher approaches the abstract meaning of the scientific

concepts to children's sense/everyday concepts, i.e. "speech meaning" ( $\leftarrow$ ). This is how Vygotsky's colleague Zalkind describes this cooperation between the teacher and the child, leading to developing a qualitatively new thinking by the child ( $\leftrightarrow$ ):

...there should be the inner unity between the teacher and the pupil as well as understanding each other's feelings and intentions. Upbringing and education is a process of mutual continuous adaptation of the both sides, in which the role of the most active, initiative part is played in turn by the teacher and the child. (Zalkind, 1930, p.196)

The end result of the teacher-child cooperation is accomplishing "from-to" development through "between-type" development. The aim of the "between-type" development is to reconcile "the opposite processes of the development of intellectual [scientific concepts] and speech [spontaneous concepts] phenomena... which...become an indivisible entity just due to their opposite direction" (Vygotsky, 1996a, p. 308).

Reaching harmonious relations between scientific and spontaneous concepts, i.e. between life ("speech meaning") and school knowledge ("meaning"), or between the empirical subjective sense, children draw from instruction and the objective meaning of instruction within the systematic school education. The relations between everyday practical knowledge and instruction could be summed up in the following way: the teacher introduces scientific concepts through instruction/words by approaching the "meanings" of scientific concepts to the sense/understanding of children, i.e. to the spontaneous concepts ( $\leftarrow$ ). For example, the teacher could compare already mentioned reflecting the Soviet reality scientific concept "revolution" to the destructive thunderstorm after which there appears a beautiful rainbow to show how destruction could lead to the creation of the new. Then, abstract, theoretical and alien to children's

understanding, scientific concepts establish harmonic relations with the “full of life” and everyday experience spontaneous concepts ( $\downarrow$ ). For example, the teacher can spend some time giving other examples from real life situations, illustrating the word “revolution” and asking children to give their own examples till it is clear that children feel or “sense” this abstract word. It could be done in the form of questions and answers, dialogue or play. After establishing the “diplomatic” relations between spontaneous and scientific concepts, there is made a qualitatively new combination, consisting of the elements of meaning and sense, which continues its development along the trajectory of meaning to the thinking/intellectual phenomena of the word ( $\rightarrow$ ). On the way back to the internal form of the word, the “meanings” of the words are filled with the “life energy” of “speech meanings”/word sense and reflect children’s personal attitudes, desires, needs, choices, preferences, emotions. At the end of the process of developing Higher Psychological Functions through complimenting scientific concepts with everyday concepts, the child is able to understand and use words correctly in an appropriate life context. According to this, the previous schematic depiction of children’s development/ZPD as  $\leftrightarrow$ , could be changed into  $\rightleftarrows$ , as I illustrate it in Figure 10.

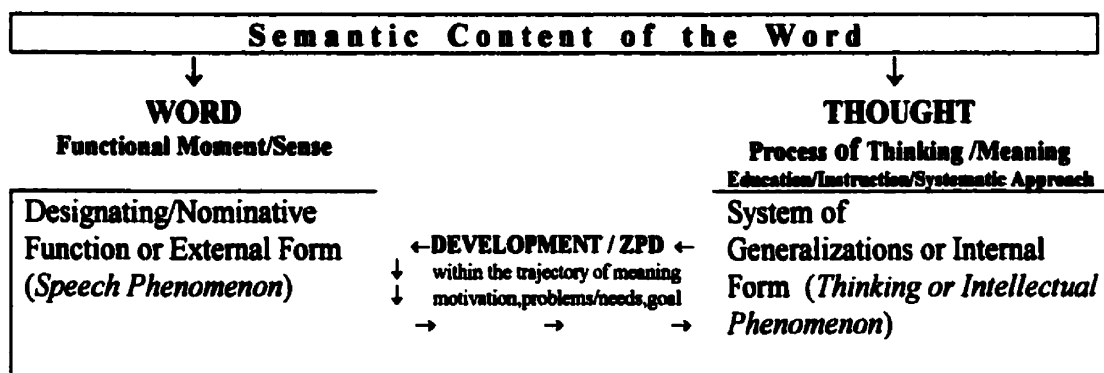


Figure 10

### Children's development/ZPD within the regulation of the word meaning

The above analysis of the regulatory function of the word meaning within the educational curricula graphically demonstrates the leading role of the teacher's instruction within the systematic relations of school environment in the process of children's development. Indeed, if the development of immature children's "speech meanings" could be regulated only through the "meanings" reflected in the system of generalizations, then teacher's instruction/language having a well developed "meaning" within the systematic relations of the system of generalizations, could be the best means of speeding up children's concept/consciousness development.

To make the final analysis of the leading role of teacher's instruction in children's development, it seems interesting to compare Figure 9 and Figure 10. The result of this comparison is illustrated in Figure 11, where "meaning" is [m], "speech meaning" is [s] and functional elements are [f].

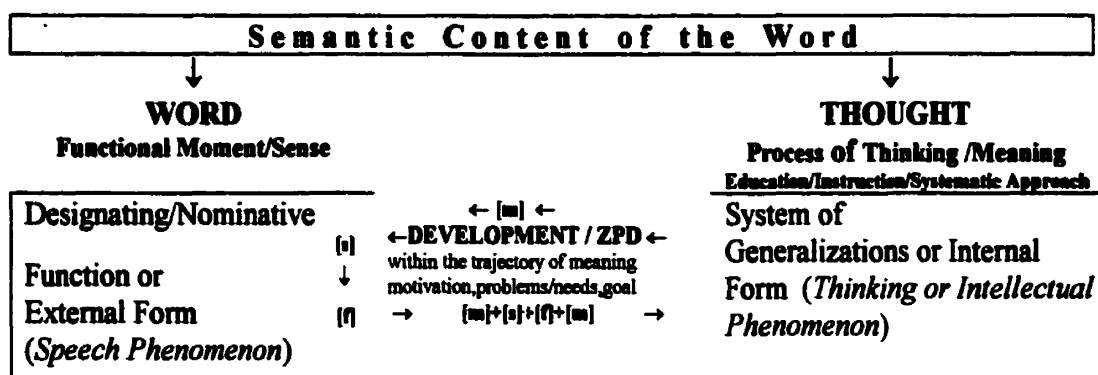


Figure 11

Relations between “meaning” [m], “speech meaning” [s] and functional elements [f] within children’s ZPD

Though I illustrate in Figure 11 the leading role of teachers’ instruction in children’s development, I don’t intend by any means to downplay the importance of the mediating role of peers, i.e. when more capable peers contribute to other children’s development. For Vygotsky, discussions among peers is an essential part of their development. The leading role of teachers must be limited to guiding and directing pupils thinking in their search for the answers.

### Summary and Conclusions

In this chapter I analyzed the concept of regulation and introduced three types of regulation: speech-regulation, meaning-regulation and self-regulation. I also showed that the child’s level of regulation serves as the criterion of the development of his/her Higher Psychological Functions (consciousness, thinking). Fully mature consciousness reflect the highest type of regulation, i.e. self-regulation. I schematically depicted how the

functional elements fit in within these three types of regulation. I examined in more depth the zone of proximal development and came up with two interpretations of the ZPD - functional and mini-ZPDs within the levels of generalizations. I made an analysis of the trajectory of meaning of the ZPD within the development of the word in the context of the "speech meaning" and "meaning" or spontaneous and scientific concepts. It allowed me to elaborate on the role of the teacher in children's maturation and how teacher's words (instruction) can lead children's development. I also emphasized the fact that teacher-pupil communication is beneficial for both parties. Despite the fact that teachers' instruction leads children's development, in the long run, it is both teachers and pupils who learn and develop in the process of their communication (though in a different way). As I have quoted above, "upbringing and education is a process of mutual continuous adaptation of the both sides [teachers and children], in which the role of the most active part is played in turn by the teacher and the child" (Zalkind, 1930, p.196).

The questions I posed at the beginning of the chapter could be answered in the following way:

1) *What are the relations between the concept of regulation, functional elements and concept/consciousness?*

There have been singled out three types of regulation: speech-regulation, meaning- regulation and self-regulation. The first type of regulation is provided by the verbal social environment (within the sense/nominative function of the word). The second - by the teachers'/adults' language/words (within the meaning/system of generalizations of the word). The third highest type of regulation - self-regulation - is

Higher Psychological Functions and consciousness. Self-regulation makes it possible for the child to regulate his/her inner processes with the help of the thinking/intellectual phenomenon of the words without any verbal help from outside. Thus, in the beginning, the functional elements develop within the social environment; later they are subjected to the second type of regulation, provided by the teacher/adult language meaning/words. Through the verbally“ guided” development of children’s functional elements, or problem-solving abilities along the trajectory of word meaning, they reach their highest level of regulation - self-regulation.

*2) What is the schematic place of the ZPD within the semantic structure of the word and functional criteria?*

The schematic place of the zone of proximal development within the semantic structure of the word and functional criteria is between the sense or nominative form of the word representing its functional aspect, and its meaning or thinking/intellectual phenomenon of the word.

*3) What could be the characteristics of the developmental pattern of the ZPD within the semantic structure of the word?*

The dynamics of the developmental pattern of children’s ZPD is uneven and variable. It could be analyzed and understood only over a period of time. According to Vygotsky, a fragmented approach to analyzing children’s development can’t provide an objective picture of their behavior.



***4) What impact could the functional criteria have on the interpretation of ZPD?***

The analysis of the functional criteria within children's zone of proximal development could lead to the following functional interpretation of the ZPD: the zone of proximal development is the difference between the child's understanding of his/her motivation, needs, problems, goals, etc. as provided by instruction through the linguistic intervention of the teacher/adult or more capable peers and the child's active spontaneous understanding.

***5) What impact could the measure of generality have on the interpretation of the ZPD?***

The investigation of the zone of proximal development within the measure of generality allows us to look at the ZPD as consisting of mini-ZPDs within the levels of generalizations.

***6) What conclusions could be made with respect to word regulation, measure of generality and functional criteria within the educational perspective?***

There could be made the following conclusions within the educational perspective concerning word regulation, measure of generality and functional criteria. Children's maturation depends on the development of the trajectory of word meaning within their zones of proximal development, i.e. on the teacher-child verbal collaboration. On the one hand, the trajectory of word meaning within the ZPD depends on the development of the functional elements, i.e. children's problem-solving abilities, which are connected to such children's emotional and motivational factors as their motives, choices, attitudes, needs, desires, etc. On the other, the development of the

functional elements within the sense of the word is regulated by the language within the word meaning. In other words, the development of the trajectory of word meaning is stimulated by the functional elements. At the same time the functional elements are stimulated and regulated by the word meanings. These complex relations could be interpreted as a recursive process: Language meaning-Functional Elements-Language meaning. Thus, children's concept development is regulated by the language meaning provided by teachers/adults through developing children's problem-solving abilities within practical/empirical thinking. It is the systematic approach to developing concepts within the system of generalizations, which provides for using the language as a tool for children's maturation. And, finally, it is education/instruction which provides for developing the systematic relations in the process of teacher-child collaboration.

*7) What are the relations between the three types of regulation and semantic structure of the word?*

The regulation by the verbal social environment ("speech-regulation") corresponds to the designating/nominative form of the word representing its functional aspect or word sense. The regulation by word meanings with the verbal help of the teacher/adult as a means of solving a problem or reaching a goal (meaning-regulation) corresponds to the trajectory of meaning of the concept development. And self-regulation corresponds to the intellectual phenomenon/internal form of the word, which is fully developed only within the systematic approach of school education through the instruction of the teacher.

## Research question 1.2.

*How can Vygotsky's major concepts of regulation and development/ZPD within the functional criteria be interpreted from an educational perspective?*

This question could be have the following answer:

From the perspective of the functional criteria, the concept of development/ZPD could be interpreted as the development of children's problem-solving abilities, i.e. their motivation, problems, needs, goals. The development of the problem-solving abilities of children is linguistically regulated by the teacher/adult and capable peers. Within an educational perspective and functional criteria, the relations between the concept of regulation and development/ZPD could be reflected in the so-called functional interpretation of the ZPD: the zone of proximal development is the difference between the child's understanding of his/her motivation, needs, goals as provided by instruction through the linguistic intervention of the teacher/adult and the child's active spontaneous understanding. Thus, according to the functional interpretation of the ZPD, the regulation of children's behavior by the teacher should be based on developing children's personalities, since children's problem-solving abilities are directly connected with such personal characteristics as children's personal preferences, their attitudes, preferences, choices, desires, etc. The above requires that there should be applied a professional criteria to teachers as mediators of children's personalities. Since the schematic place of the functional development/ZPD within the semantic structure of the word is between the meaning and the sense of the word, i.e. between the scientific and spontaneous concepts accordingly, it is teachers' responsibility to settle the conflict between the meanings of

objective scientific concepts and subjective senses of everyday concepts. Thus, the verbal regulation by teachers of children's development along the trajectory of meaning, is a long-term process, since children undergo an uneven pattern of development, full of conflicts and contradictions. "To cover the distance" from the speech-regulation to self-regulation, children go through a lot of mini-developments or mini-ZPDs, regulated by the system of generalizations within the main ZPD. Each of these mini-ZPDs is a miniature problem-solving situation, that has to be solved with the verbal help of the teacher and/or peers, i.e. through the regulation of the word meaning. To fully understand the complex pattern of children's maturation within an educational perspective, it seems more important to look at this process from the point of view of the "between-type" development than the development "from-to". In other words, from an educational perspective, it is more important to concentrate on the qualitative process of children's development under the linguistic regulation of the teacher/adult than on the quantitative results of this development, since the latter entirely depends on the former.

## **Chapter Five**

### **Russian Vygotskian School of Thought**

In this chapter I present a theoretical examination of the interpretation by Vygotskian Russian followers of the most controversial issue in Vygotsky's theory - theory of consciousness which has become known as Activity Theory. This theory deals with the main features or generators of consciousness. What underlies the conscious understanding of reality, reached in the internal form of the word or the intellectual phenomenon of the word? What are the driving forces or generators of the development of children's Higher Psychological Functions? What is the analytical unit of consciousness? I have investigated these questions in detail in chapter four which examines Vygotskian major concepts of regulation/consciousness and development/ZPD within the functional criteria.

The purposes of this chapter are to identify and analyze the main features of Vygotsky's Activity Theory or the theory of consciousness, and to compare Vygotsky's Activity theory with its interpretation within Vygotskian School of Thought in Russia on the basis of the analysis I have made in chapters three and four. I also examine Russian interpretation of Vygotsky's Activity theory within the same framework that I introduced in chapter four (i.e. with regard to Vygotskian concepts of regulation, consciousness and development). In addition, I investigate how Vygotskian School of Thought interpretes the following two issues analyzed in chapter four: the role of the language and functional criteria in children's development.

The interpretation of Vygotsky's theory by his Russian followers is represented in this chapter through the writings of his official successor in Russia, A.N. Leontiev, who has been the leader of the Russian Vygotskian School of Thought since Vygotsky's death. I think, understanding of A.N. Leontiev's development of Vygotsky's major constructs gives the best idea of the theoretical stance adopted by the Russian followers of Vygotsky.

This chapter addresses the first main research question

*What are the similarities and differences between Vygotsky's ideas and the interpretation of his theory by the leader of Russian Vygotskian School of Thought, A.N. Leontiev?*

and research sub-question 1.3.

*What are the main features of Vygotsky's Activity Theory?*

### **Main Features of Vygotsky's Activity Theory**

I singled out the following main features of Vygotsky's Activity Theory or theory of consciousness: developmental or genetic explanation of individual experience within the concept of development, the social character of children's concept formation within the social aspect, and the mediated nature of children's development within the concept of mediation. These three features or generators of consciousness development are directly connected with the role the word plays in the maturation of children's concepts.

Developmental or genetic explanation of individual experience by Vygotsky is based on Marx and Engel's historical materialism which emphasizes historical analysis.

What unites various ways of analyzing Vygotsky's concept of development is the assumption that human Higher Psychological Functions can be explained only through examining their origins as opposed to simply describing them. Thus, when Vygotsky writes about examining a child's development, he means a long-term investigation revealing genetic roots of a child's behavior. In Vygotsky's view, the genetic factor is the only source leading to the regulation, shaping, explanation and understanding of the development of children's Higher Psychological Functions. Cole and Scribner write in this regard that

...when Vygotsky speaks of his approach as 'developmental,' this is not to be confused with the theory of a child's development. The developmental method, in Vygotsky's view, is the central method of psychological science. (Cole & Scribner, 1978, p. 7)

One of the forms of a developmental or genetic approach is concerned with ontogenesis, which is understood in Soviet psychology as "development of the main features of the individual psychic in the childhood" [**«формирование основных структур психики ребенка в течение его детства»**] (Petrovsky & Yaroshevsky, 1990, p. 250). From an educational perspective, this form of development has been analyzed in chapter four which examines different interpretations of children's zones of proximal development (including functional interpretation of ZPD and mini-ZPDs within the level of generalizations) in ontogenesis. Long-term genetic explanation of children's behavior in ontogenesis has been also analyzed in chapter four by introducing the idea of the "between-type" of development as opposed to the "from-to" type of development.

According to Vygotsky, genetic analysis should also be concerned with cultural and historical data in phylogenesis. In Soviet psychology this is understood as "the

process of development and evolution of the forms of consciousness in the course of human history” [«процесс возникновения и эволюции форм сознания в ходе истории человечества»] (Petrovsky & Yaroshevsky, 1990, p. 428). Cultural and historical analysis plays such an important role in Vygotsky’s theory of the development of Higher Psychological Functions, that it is often called a “cultural-historical” [«культурно-историческая»] theory of mind (Smirnov, 1995). The analytical unit of this theory, i.e. socio-cultural-historical sign, word or language meaning I examined in detail in chapters three and four.

The social character of children’s concept formation deals with the social milieu/interaction or communicative situations as I analyzed in chapter three (Functional Role of Socio-Cultural Milieu). The idea that human activity is of a social nature is based on the fact that speech in its nominative function as well as such Higher Psychological Functions as attention, memory, thinking are viewed as emerging out of a child’s social interactions with adults. Though the idea that children acquire cognitive abilities by learning from adults is not new, the way Vygotsky understands it, is unique. Vygotskian tradition emphasizes that Higher Psychological Functions develop by first being carried out interpsychologically and then intrapsychologically. Vygotsky stresses the fact that during the early stages of development, children often participate in activities that require skills and modes of mediation they do not possess. When children come to a point in a psychological activity that proves too difficult for them, they turn to an adult or more capable peer for help. The activity is then carried out on the interpsychological plane. The future development of the child with regard to this activity consists of gradual



transference of links of the activity's functional system from the interpsychological to the intrapsychological plane, i.e. from the social to the individual plane.

Inner speech, reached in the internal form of the word is an intrapsychological mediating device that arises out of interpsychological social speech. Thus, according to Vygotsky, speech appears on two levels - first on the interpsychological and then on the intrapsychological level. For young children speech exists only on the interpsychological plane and adults direct children's activities through interpsychological speech. Later children begin to develop the ability to perform activities based on their own speech, i.e. on the intrapsychological plane. The analysis of the social milieu, zone of proximal development and the role of the language and instruction in children's development that I have conducted in chapters three and four, can serve as an example of the social character of children's concept formation.

The mediated nature of children's development is closely connected to Vygotsky's cultural-historical theory of development and the social character of children's concept formation. The element which unites the three features of Vygotskian Activity Theory is the socio-cultural-historical sign - language, i.e. the main mediating tool of children's development. The historical foundations for tool-mediated nature of human activity can be found in Marx and Engels's theory. For example, Marx writes:

An instrument of labor is a thing, or complex of things, which the laborer interposes between himself and the subject of his labor, and which serves as the conductor of his activity... The use and fabrication of instruments of labor, although existing in the germ among certain species of animals, is specifically characteristic of the human labor-process, and Franklin therefore defines man as a tool-making animal. (Marx, 1906, p.199-200)

Notions like these provide the basis for much of what Vygotsky wants to say about the mediation of human activity. He is particularly interested in extending the notion of mediation by tools to mediation by signs. This basis for much of his work is the assumption that in order to manage many of the psychological tasks involved in coordinating one's efforts with others and in self-regulation, humans use sign systems to mediate their efforts. While recognizing in general, the importance of semiotics or sign systems in human development, in particular, Vygotsky claims that it is the speech which is the most important means employed by humans to organize social interaction, to regulate others, and to regulate oneself. He stresses that speech provides the means for regulating oneself only after it has been developed as a means of operating in the social realm. Soviet semiotician Ivanov summarized these points about Vygotsky's notion of the mediational role of sign systems this way:

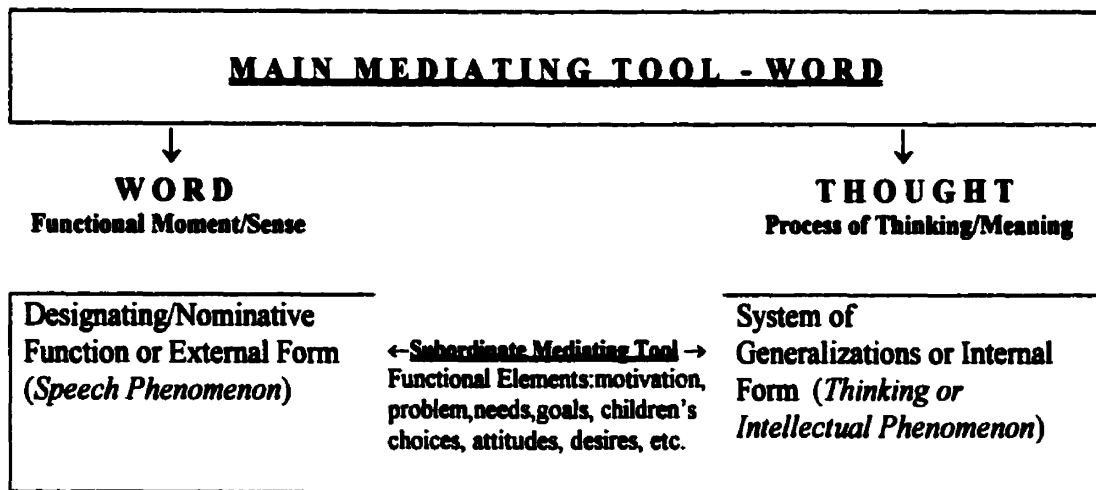
As the outstanding Soviet psychologist L.S. Vygotsky observed in the 1930s, signs are a means of controlling human behavior. Man cannot govern his own behavior directly and creates signs in order to control it indirectly. The history of culture can be described to a great extent as the transmission in time of sign systems serving to control behavior. Semiotic systems of the programmed control of human behavior are elaborated due to the internalization of external signs, a process that can be partly compared to the automation of programming. This process can be traced most distinctly to the emergence of internal speech. Investigation of children's speech makes it possible to ascertain that speech arises initially only as a means of communication and a way for adults to control the infant's behavior. (Ivanov, 1977, pp. 29-30)

Thus, while Vygotsky is interested in the general problem of how sign systems mediate human behavior, he focuses most of his attention on how speech is used in this capacity. An important point to keep in mind is that the sign systems do not simply mediate some activity that would exist without them, i.e. they are not viewed as being

handy tools for making an existing activity easier. Rather, as is the case with all forms of mediation, they allow and even lead to the creating of types of activities that would not otherwise exist. According to Vygotsky, sign systems among which the language plays the most important role, mediate or regulate human behavior.

As I have analyzed in chapter three and especially in chapter four, the words or language, including teacher's instruction, regulate children's behavior at every stage of their development. An important role in this process belongs to the elementary psychological functions, represented in Vygotsky's theory by functional elements (motivation and related to the emotional/motivational factor problems, needs, goals, etc.). The functional elements are connected with the designating/nominative function of the word or the sense of the word and develop children's problem-solving abilities at the level of practical/empirical thinking. I have analyzed in chapter three that though motivation, problem, needs and goal are just constituent elements in the process of children's maturation, they still play a very important role in the development of meanings. In chapter four I have interpreted the relations between the meaning of the word (Higher Psychological Functions) and its sense (Elementary Psychological Functions), represented by the functional elements, in the following way: word meaning→functional elements/sense→word meaning. I thus, identify two kinds of mediating tools within Vygotsky's theory: main and subordinate. The main mediating tool of consciousness development is socio-cultural-historical sign language/word meaning (fully represented in the internal form of the word within the systematic school education/instruction), which mediates, regulates and leads children's development. The

subordinate mediating tool includes the functional elements, i.e. children's motives, problems, needs, goals along with related to them children's choices, preferences, attitudes, desires, interests and other emotional/motivational factors connected with children's personal characteristics. The functional elements develop children's problem-solving abilities linked to practical/empirical thinking (fully represented in the external form of the word within the social environment) within a communicative situation/context. Though the functional criterion is mediated/regulated by the word meaning and therefore plays a subordinate role in children's development, it is an essential mediating component of the word in that it shapes and speeds up the development of new word meanings. This tight knot or close unity of the main mediating tool - word meaning and subordinate mediating tool - represented by the functional criteria and based on children's personal characteristics motivational/emotional factor, is illustrated in Figure 12 below (here the word is understood as a mature concept with a fully developed meaning or system of generalizations).



**Figure 12**

### Relations between the main and subordinate mediating tools

**The three main features of Vygotsky's Activity Theory (theory of consciousness) are illustrated in Table1.**

### Table 1

### **Main features of Vygotsky's Activity Theory/theory of consciousness**

Developmental or Genetic Explanation of Individual Experience	Social Character of Children's Concept Formation	Mediated Nature of Children's Development
<p>- <u>Ontogenetic development</u></p> <p>↓</p> <p>Along the trajectory of word meaning</p> <p>- <u>Phylogenetic development</u></p> <p>↓</p> <p>Cultural-Historical Development</p>	<p>Contextualized internalization of the word meaning from the social milieu understood as a <u>communicative situation</u></p>	<p>- <u>Main mediating tool</u></p> <p>↓</p> <p>Word meaning/language</p> <p>- <u>Subordinate mediating tool</u></p> <p>↓</p> <p>Functional criteria/emotional and motivational factor</p>

## Leontiev and Vygotsky

Vygotsky's main successor, A.N. Leontiev, gave his own interpretation of Vygotsky's major concepts of regulation and development as well as the role of the functional criteria and language in the maturation of children's Higher Psychological Functions. Although the interpretation of Vygotsky's views by Leontiev's school of thought is based on Vygotsky's theory, there is enough evidence to argue that sometimes Leontiev drastically distorted Vygotsky's principal ideas. In this section, I examine A.N. Leontiev's interpretation of Vygotsky's ideas with the aim of showing later how Leontiev's ideas could fit within part of Vygotsky's theory dealing with children's development, education and TESL. This examination is based on my reading of the Russian version of A.N. Leontiev's book *Activity. Consciousness. Personality* [*Деятельность. Сознание. Личность*]. This book is the best illustration of A.N. Leontiev's approach to the idea of the Activity Theory. It comprises six of Leontiev's works, which were published in 1968-1970: *Karl Marx and Psychological Science* [*Карл Маркс и психологическая наука*], *The Concept of Reflection and its Significance for Psychology* [*Понятие отражения и его значение для психологии*], *Sensitive Image and Model in the Light of Lenin's Theory of Reflection* [*Чувственный образ и модель в свете ленинской теории отражения*], *The issue of Activity in Psychology* [*Проблема деятельности в психологии*], *Activity and*

*Consciousness[Деятельность и сознание], Activity and Personality[Деятельность и личность].*

### Concepts of Regulation, Consciousness and Functional Criteria

For Vygotsky, consciousness is regulated by sign systems, the most important of which is the socio-cultural-historical sign language, reflected in the word meaning. Thus, in Vygotsky's view, the development of children's consciousness or Higher Psychological Functions unfolds along the trajectory of word meaning and is regulated by the word meaning. The word meaning serves as the analytical unit of consciousness and is connected to consciousness as I have illustrated it in Figure 2 in chapter one.

While Vygotsky's theory states that children's/individuals' consciousness develops along the trajectory of word meaning and is *regulated by the word meaning*, A.N. Leontiev argues that people's consciousness is *regulated through physical/practical activity*:

**Уже в самой телесной организации индивидов заключена необходимость того, что они вступают в активное отношение к внешнему миру: чтобы существовать, они должны действовать, производить необходимые им средства к жизни. Воздействуя на внешний мир, они изменяют его; этим они также изменяют и самих себя. Поэтому то, что они представляют собой, определяется их деятельностью.**

The very *physical nature* of individuals presupposes that they should have active relations with external world; they have to act and produce the necessary means to maintain life. They change the external world through the interaction with it; by doing this, they also change themselves. Thus, who they are, is determined by their activity... (Leontiev, 1983, p. 105)

It appears that A.N. Leontiev understands activity through which people change themselves (i.e. activity which influences/regularates people's psychological development) as physical relations with external world aimed at producing "the necessary means to

maintain life". In other words, Leontiev interpretes activity as practical physical phenomenon, or labor which leads people's/individuals' concept/consciousness development. Leontiev's theory poses that it is the *practical activity* (not the word meaning) which is the regulator of Higher Psychological Functions:

**...внутренние мыслительные процессы являются не чем иным, как результатом интериоризации и специфического преобразования внешней практической деятельности...**

**...internal processes of thinking are nothing else but the result of the interiorization and specific transformation of the external practical activity...  
(Leontiev, 1983, p. 119)**

Thus, in Leontiev's view, practical activity is a regulating tool of children's concept/consciousness formation and its developmental trajectory. One more regulating tool in Leontiev's theory is represented by the three analytical units of the development of Higher Psychological Functions, as Leontiev calls them. These three analytical units correspond to Vygotsky's functional elements: "activities distinguished according to the motives that stimulate them" [**«деятельности - по критерию побуждающих их мотивов»**] (the motive is connected to needs in that the former depends on the needs), "actions-processes subjugated to the conscious goals" [**«действия - процессы, подчиняющиеся сознательным целям»**], and "operations which directly depend on the means and conditions of reaching a certain goal" [**«операции, которые непосредственно зависят от условий достижения конкретной цели»**] (Leontiev, 1983, p. 157). Referring to activities/motive, actions/goals and operation/means and conditions, Leontiev writes that "it is these "units" of human activity which found its macrostructure" [**«эти «единицы» человеческой деятельности и образуют ее макроструктуру»**], i.e. they regulate people's consciousness (Leontiev, 1983, p. 157). Furthermore, according to



Leontiev, goals as well as problems within which these goals exist, can provide a genetic explanation to the development of Higher Psychological Functions:

**Стало очевидным, что понимание мыслительных процессов, единственно соответствующее накопленным фактам, есть их понимание в качестве реализующих особый вид целенаправленных действий и операций, адекватных познавательным задачам.**

It has become a fact that the only right way to understand mental processes in line with the existing evidence is to understand them as realizing a certain kind of goal-oriented actions and operations, corresponding to cognitive problems. Leontiev, 1983, p.119)

This quote shows a striking difference between Leontiev's and Vygotsky's understanding of the role of goal, problem and other motivational or stimulating factors in children's development. As I have examined in chapter three, for Vygotsky, the development of human intelligence is registered in and regulated by the word meaning. It means that in Vygotsky's view, neither the goal nor the problem or other determinative tendencies can regulate or provide the genetic explanation of the development of Higher Psychological Functions, since "the goal itself is not an explanation" [*цель вообще не есть объяснение*] (Vygotsky, 1996a, p. 124). Vygotsky also writes:

**Не может возникнуть никакой целесообразной деятельности без наличия цели и задачи, пускающей в ход этот процесс, дающей ему направление. Но наличие цели и задачи еще не гарантирует того, что к жизни будет вызвана действительно целесообразная деятельность... Очевидно, вообще в объяснении природы психологического процесса, приводящего к разрешению задачи, мы должны исходить из цели, но не можем ограничиться ею. Цель, как уже сказано, не есть объяснение процесса. Главной и основной проблемой, связанной с процессом образования понятия и процессом целесообразной деятельности вообще, является проблема средств, с помощью которых выполняется та или иная психологическая операция, совершается та или иная целесообразная деятельность.**

There cannot be any goal-directed activity without the goal and the problem, which set forth this process and shape its direction. But the very existence of the goal and problem does not yet guarantee that they will provide for a goal-directed activity... Though the goal seems to be the key to the explanation of the nature of any psychological process which can lead to the solving of a problem, the above explanation shouldn't be limited by the goal. The goal, as it has been mentioned before, is not the explanation of the process. The main and basic

issue, connected with the process of concept formation and goal-directed activity in general is the issue of means and conditions with the help of which there can be performed a psychological operation or carried out a goal-directed activity. (Vygotsky, 1996a, p. 124)

For Vygotsky the issue of means is directly connected with the sign used “as the main means of directing and controlling psychological processes” [*как основного средства направления и овладения психическими процессами*] (Vygotsky, 1996a, p. 124). Thus, both Vygotsky and Leontiev attach importance to the motives, goals, problems in the process of the development of consciousness, as well as to the needs which determine motives and goals, i.e. to the emotional/motivational factor. In other words, both scholars develop the functional aspect of their theories. But there is one major difference in Vygotsky’s and Leontiev’s interpretation of the functional aspect. Vygotsky looks at the functional elements as though necessary, but subordinate components of concept/consciousness development, attaching the main role in this process to the word meaning. Leontiev, on the contrary, attaches the main regulatory role in consciousness development to the emotional factor represented by the functional criteria (along with the practical activity, as I have analyzed before):

**Эти непосредственные переживания и выполняют роль внутренних сигналов, с помощью которых регулируются осуществляющиеся процессы**

It is these personal emotions that perform the role of internal signals with the help of which the processes [consciousness development] are regulated. (Leontiev, 1983, p. 214)

In an attempt to show what unites practical activity and subjected to empirical/practical goals functional elements, on the one hand, and thinking, on the other, Leontiev writes:

**Как и практическая деятельность, мыслительная деятельность отвечает тем или иным потребностям и побуждениям и, соответственно, испытывает на себе**

**регулирующее влияние эмоций. Как и практическая деятельность, она состоит из действий, подчиненных сознательным целям. Наконец, как и практическая деятельность, мышление осуществляется теми или иными средствами...**

Thinking like practical activity, corresponds to certain needs, motives and due to this, it is regulated by emotions. Like practical activity, thinking is comprised of actions subjugated to conscious goals. Finally, like practical activity, thinking can be realized by employing certain means, i.e. through certain operations... (Leontiev, 1983, pp. 119-120)

In other words, in Vygotsky's theory, the word in its internal function plays the main role, serving as the analytical unit of children's development, while connected to children's needs, motives and goals practical thinking, represented in the external form of the word by the functional elements, plays a subordinate role. In Leontiev's theory it is the practical thinking, functional elements and connected with the practical thinking external form of the word which are the most important for children's concept/consciousness development.

Thus, for Vygotsky, "born" within the *external form/sense of the word* functional elements, i.e. problems, goals, needs, motives and other emotional/motivational factors, connected to children's personal characteristics, develop along the trajectory of word meaning, represented in the *internal form/meaning of the word*. For Leontiev, the functional elements within the *external form of the word* develop along the trajectory of practical activity and practical/functional thinking, represented also in the *external form of the word*.

### Concept of Development

As I analyzed in chapters three and four, in Vygotsky's theory the ontogenetic development is understood as children's maturation of Higher Psychological Functions

within their zones of proximal development along the trajectory of word meaning.

According to Leontiev's theory, children's development of consciousness unfolds within their ZPD along the trajectory of practical activity. Thus, Leontiev fully supports Marx's idea, that the development of the Higher Psychological Functions develop through practical activity:

**Глубокий переворот, совершенный Марксом в теории познания, состоит в том, что человеческая практика была понята как основа человеческого познания, как тот процесс, в ходе развития которого возникают познавательные задачи, порожаются и развиваются восприятие и мышление человека... в практике должен человек доказать истинность, действительность и мощь, посюсторонность своего мышления.**

Marx made a major breakthrough in the theory of knowledge by interpreting the human practice as the basis for human cognition, as the developmental process which creates cognitive problems, matures people's perception and thinking... people should prove how adequate, active, powerful and down-to-earth their thinking is through practical activity. (Leontiev, 1983, p.105)

One of the major discoveries of Vygotsky is his speculation that genetic/developmental analysis should also be concerned with phylogenetic, cultural and historical data, "registered" in the socio-cultural-historical sign - word. In Leontiev's theory, there is no such a thing as cultural-historical development. Leontiev writes the following in this respect:

**...она [культура] образует не личностное в человеке, а то, что, напротив, является в нем безличным, как, например, общий язык, знания, распространенные в данной социальной среде предрассудки, мода и т.д.... Культура... составляет предмет истории, социологии, а не психологии.**

...it [culture] develops not the traits of people's personalities but the features which are impersonal, for example, common language, knowledge, prejudices, fashion, etc. ... Culture... is a historical, sociological, but not psychological subject. (Leontiev, 1983, p. 192)

This quotation also shows how significantly Leontiev distorts Vygotsky's theory on semiotic mediation, which states that cultural-historical sign language is not an

impersonal feature in individuals' development, but its main mediating and regulating tool.

### The Role of the Language in Children's Development

Vygotskian understanding of the language as a cultural-historical sign which mediates, regulates and leads the development of children's personalities and Higher Psychological Functions, fully reflects how much importance he attaches to this mediating tool. In Vygotsky's view, thinking is always verbal. Vygotsky's theory states that there can't be thinking without speech (either oral/external or inner/internal), since *thinking* intellectual phenomenon *develops within* the internal form/meaning of *the word* along the trajectory of word meaning, as I have illustrated it in Figure 2 in chapter one and Figure 7 in chapter four. In other words, for Vygotsky language (word meaning) is the main mediating/regulating tool of concept/consciousness development.

For Leontiev, the main mediating/regulating tool of concept development is not language meaning but practical activity and emotional/motivational factors, i.e. functional criteria. Leontiev fully supports his own interpretation of Vygotsky's theory when he alleges on Vygotsky's behalf (Leontiev doesn't refer to any source) that

**...внутренние психические деятельности происходят из практической деятельности, исторически сложившейся в результате образования основанного на труде человеческого общества...**

...inner psychological activities derive from practical activity, which has been founded in the course of history as a result of the development of labor-based human society... (Leontiev, 1983, p. 150)

For A.N. Leontiev, language is not the main mediating/regulating tool of concept/consciousness development but simply one of the by-products of practical activity or labor:

**В процессе материального производства люди производят также язык, который служит не только средством общения, но и носителем фиксированных в нем общественно вырабатанных значений.**

**In the process of material production people *also* produce language, which fixes socially developed meanings in addition to being a means of communication. (Leontiev, 1983, p. 151)**

While in Vygotsky's view, meanings/language develop through meanings/language, Leontiev's theory states that language just fixes meanings (i.e. it is simply a carrier and not the primary source of further development and maturation of meanings). In the next section I show how Leontiev understands "socially developed meanings", that is, how he interpretes the role of the social environment in children's concept development.

### **Social Milieu**

Concerning the functional role of the social milieu, A.N. Leontiev interpretes this not as a word-regulated/mediated communicative situation, but as an *object-regulated/mediated environment*, i.e. the social environment which is mediated and regulated by objects, which serve as tools of children's development through physical/practical activity:

**Ситуация развития человеческого индивидуума обнаруживает свои особенности уже на самых первых этапах. Главная из них – это опосредствованный характер связей ребенка с окружающим миром. Изначально прямые биологические связи *ребенок-мать* очень скоро опосредствуются предметами: мать кормит ребенка из чашки, надевает на него одежку и, занимая его, манипулирует игрушкой.**

From the very first stages the process of individual's development reveals its unique features. The main one is the mediated nature of children's ties with the surrounding world. Very soon originally direct biological ties baby-mother get mediated by objects: mother gives the baby a cup to drink, puts the clothes on the baby, and while entertaining it, plays with a toy. (Leontiev, 1983, p. 215)

The issue of interpreting the social environment by A.N. Leontiev (as object-regulated) and by Vygotsky (as people regulated verbal environment) is one of the major differences between the two scholars.

### Activity Theory: Vygotsky and Leontiev

Attaching the main importance in children's concept/consciousness development to practical activity, practical/empirical thinking within the external form of the word and functional elements, A.N. Leontiev gives the following definition of activity:

**Деятельность... это единица жизни, опосредствованной психическим отражением, реальная функция которого состоит в том, что оно ориентирует субъекта в предметном мире... Основной... характеристикой деятельности является ее предметность.**

Activity is ... a life entity, mediated by the psychological reflection, the real function of which is to guide the subject in the object-oriented world... The main... characteristic of the activity is its object-oriented nature.  
(Leontiev, 1983, p. 141-142)

According to this quotation, for A.N. Leontiev, the function of the psychological reflection is "to guide the subject in the object-oriented world". That is, its function is to regulate people's interaction with objects which serve as tools in the process of the development of practical/empirical thinking in the object (not language)-oriented world. It is important to note that *practical/empirical thinking* is connected to children's problem-solving abilities which develop through satisfying children's everyday practical needs, i.e. with *functional elements and the external form of the word*. The above is one more piece of evidence to suggest that Leontiev understands "mediated by psychological reflections" activity as developing within the external form of the word and along the trajectory of practical/physical manipulation with objects in the object-oriented world.

This understanding of activity by A.N. Leontiev differs in many respects from Vygotskian approach to the Activity theory, as it is illustrated in Table 2.

Table 2  
Activity theory: Vygotsky and Leontiev

Developmental Aspect		Social Aspect		Aspect of Mediation	
<i>Vygotsky</i>	<i>Leontiev</i>	<i>Vygotsky</i>	<i>Leontiev</i>	<i>Vygotsky</i>	<i>Leontiev</i>
-Ontogenetic development -Phylogenetic development (cultural-historical development) ↓ both developments unfold along the trajectory of word meaning	-Denies the cultural factor ↓ Development along the trajectory of practical activity	-Social milieu = Communicative situation ↓ <u>semiotic/language-oriented</u>	-Social milieu = practical activity ↓ <u>object-oriented</u>	<u>Semiotic mediation through</u> ↓ <u>main mediating tool - word/language and its essential component</u> ↓ <u>subordinate mediating tool - functional elements</u>	<u>Object-oriented mediation through</u> ↓ practical activity and equally important functional elements

## Summary and Conclusions

In this chapter I provided a comparative analysis of Vygotsky's understanding of Activity Theory and its interpretation by the Russian School of Thought. I based this analysis on the theory, developed by the official representative of Vygotskian School of Thought in Russia, A.N. Leontiev.

First, I identified the main features of the original Vygotsky's Activity Theory. To do this I referred to the final analysis of the main Vygotskian concepts along with the functional aspect of the word which I had examined in earlier chapters. My second step was to analyze A.N. Leontiev's research within the same framework I examined



Vygotsky's theory, i.e. regarding the concepts of regulation, consciousness and development as well as the role of the language and functional criteria in children's development. This analysis makes it possible to compare Vygotsky's main features of Activity Theory and Leontiev's interpretation of the theory of consciousness and see the difference between their theories.

Now we come back to research sub-question 1.3.:

*What are the main features of Vygotsky's Activity Theory?*

The main features of Vygotsky's Activity Theory are *developmental or genetic explanation of individual experience, social character of children's concept formation, and mediated nature of children's development*, as I have illustrated it in Table 1 in this chapter.

Vygotsky's main achievement within the *developmental aspect* of his theory is his introduction of the notion of the cultural-historical development of Higher Psychological Functions, represented by the socio-cultural-historical sign language.

The *social aspect* of children's concept formation is understood by Vygotsky as the development of word meaning within communicative situations. Vygotsky's theory states that the internalization of social meanings could be realized only through verbal interaction with people. It implies that Vygotsky supports situated, contextualized approaches to the development of Higher Psychological Functions.

Within Vygotsky's *aspect of mediation* we can identify two kinds of mediating/regulating tools: main mediating tool - language/word meaning and

subordinate mediating tool - emotional/stimulating factor, represented by the functional elements within the practical thinking.

Let's turn to my first main research question:

*What are the similarities and differences between Vygotsky's ideas and the interpretation of his theory by the leader of Russian Vygotskian School of Thought, A.N. Leontiev?*

The comparison of Vygotsky's and Leontiev's theories of consciousness is made within the developmental, social and mediational aspects, which comprise the main features of Vygotskian Activity Theory, as I have illustrated it in Table 2 in this chapter.

Developmental aspect

*Differences*

Although both Vygotsky and Leontiev develop borrowed from Marx and Engels idea of the historical development of humans through using tools, they do so in different ways. Vygotsky compliments Marx and Engels's historical development with a semiotic and cultural aspect, best represented in the cultural-historical sign and mediating/regulating tool of concept formation - language/word meaning. Leontiev denies the cultural factor. He is focused just on the Marxist historical approach, according to which the crucial role in consciousness development belongs to the practical activity and labor tools. While for Vygotsky children's development in ontogenesis and phylogenesis unfolds along the trajectory of word meaning, for Leontiev it does along the trajectory of practical activity.

## **Social aspect**

### ***Similarities***

Both Vygotsky and Leontiev attach the main importance in concept/consciousness development to the social factor. That is, for them, consciousness develops from outside. Thus, with regard to the social aspect, we can see that they are similar to each other.

### ***Differences***

However, there are some major differences. Vygotsky and Leontiev interpret the social situation in different ways. While for Vygotsky the main role in the social aspect belongs to the semiotic/language-oriented communicative situation, for Leontiev it is object-oriented practical activity.

## **Aspect of mediation**

### ***Similarities***

Leontiev like Vygotsky develops the functional aspect of concept mediation. Like Vygotsky, he attaches great importance to children's motives, needs, goals, problems, desires, preferences, attitudes and other emotional/motivational personal factors. Following Vygotsky, Leontiev looks at the functional criteria as a mediating tool in the process of the development of Higher Psychological Functions. In this sense then they are the same.

### ***Differences***

As it is illustrated in Figure 12 in this chapter, for Vygotsky, there are two levels of mediation: main level (language/word meaning) and subordinate level (functional elements). For Leontiev there is one level of mediation, represented by the practical

activity and functional elements, reflecting emotional/motivational factor of children's development. In Table 3, I graphically illustrate this difference between the two scholars.

**Table 3**

**Vygotsky's and Leontiev's interpretation of mediational aspect. Comparative analysis.**

<b>L.S. VYGOTSKY</b>		<b>A.N. LEONTIEV</b>
<b>Main Level of Mediation</b>	<b>Subordinate Level of Mediation</b>	<b>Main Level of Mediation</b>
Language/word meaning	Functional elements	<ul style="list-style-type: none"> <li>- Practical activity</li> <li>- Functional elements</li> </ul>

## **Chapter Six**

### **Western Vygotskian Schools of Thought**

This chapter examines a Western interpretation of the Russian Vygotskian School of Thought founded by L.S. Vygotsky and further developed by A.N. Leontiev. I examine the works of Lave & Wenger (1996) and Lantolf & Appel (1994) with regard to Leontiev's School of Thought. In connection to Vygotsky's original theory, I examine the research of Engestrom (1996), Hedegaard (1971), Newman & Holzman (1995). Western scholars are referred to either Vygotsky's or Leontiev's Schools of Thought, according to how they interpret the role of language in children's learning and development. As I have analyzed in previous chapters, for Vygotsky, language is the main mediating and regulating tool in children's development, while for Leontiev the role of the main mediating tool is played by practical activity and practical/functional thinking. Except for Newman & Hedegaard's study (1995), Vygotskian School of Thought in the West is presented by the works written from an educational perspective.

I draw a comparative analysis of the interpretation of Leontiev's and Vygotsky's Schools of Thought within the main features of Vygotsky's Activity Theory, identified in chapter five. These features are developmental, mediational and social aspects of concept/consciousness formation.

The chapter addresses my second main research question:

*How can Western interpretations of Vygotskian School of Thought fit in with the major conclusions within Vygotsky's theory concerning the leading role of the teacher in*

*children's development?*

### **Following Leontiev**

The main focus of this East-West comparative research within Leontiev's theory is Lave & Wenger's (1996) recent Vygotskian investigation *Practice, Person, Social World*. I think their study best suits my purpose of this section. On the one hand, Lave & Wenger make their inquiry from an educational perspective as opposed to pure psychological studies on Vygotskian School of Thought. On the other hand, their study deals with all three features of the Activity Theory, which allows me to consistently analyze the three aspects of Vygotskian theory of consciousness within one research framework. In my opinion, Lave & Wenger's work could serve as a typical example, that illustrates the influence of Leontiev's school on Vygotsky's followers in the West. I also examine Lantolf & Appel's (1994) book on Vygotsky and ESL, *Vygotskian Approaches to Second Language Research* with respect to the concept of regulation and the social aspect of the Activity Theory.

### **Developmental and Mediational Aspects**

According to Lave & Wenger, children do not learn and develop along the trajectory of word meaning, as Vygotsky's theory states, but - along the *trajectory of participation*. They understand participation in the following way:

Participation is always based on situated negotiations and renegotiations of meaning in the world. This implies that understanding and experience are in constant interaction - indeed, are mutually constitutive.  
(Lave & Wenger, 1996, p. 146)

While referring to Giddens (1979) for whom “intentionality is an ongoing flow of reflective moments of monitoring in the context of engagement in a tacit practice”, Lave & Wenger “argue further that this flow of reflective moments is organized around trajectories of participation” (Lave & Wenger, 1996, p.147).

It seems difficult to agree that it is participation which is the trajectory and main mediating tool of children’s learning and development. Although children’s “negotiations and renegotiations of meaning” leading to the development of their own meanings, is definitely connected with the concept of participation, yet, it is the language which makes it possible to negotiate, renegotiate and create meanings. Thus, while participation (understood by Lave & Wenger as involvement in community of practice) is very important for children’s development, the main mediating tool in this process is language meaning. In other words, my argument is not about whether participation in social practice should or should not be considered as necessary for children’s development. It is rather about what is the most important for children’s development: verbal communication leading to the development of thinking, or such a broad notion as participation. My analysis of Vygotsky’s theory in chapters three and four, gives an unequivocal answer to the above question: the driving force and the main trajectory of children’s learning and development is word/language meaning, while long-term participation is a necessary, but not sufficient condition of this process.

### Social Aspect

For Lave & Wenger, learning/knowledge is not acquired through internalization of meaning from the social environment. That is, it does not appear on two levels in the

process of children's development as Vygotskian theory states: first - on intermental and then - on intramental. According to Lave & Wenger, children learn from social environment through participation in the community of practice. To be more exact, children's development within the community of practice/social environment unfolds along the *trajectory of participation*. In a recent publication they write:

Conventional explanations view learning as a process by which a learner internalizes knowledge, whether "discovered", "transmitted" from others or "experienced in interactions" with others. ...Learning as internalization is too easily construed as an unproblematic process of absorbing the given, as a matter of transmission and assimilation. Internalization is even central to some work on learning explicitly concerned with its social character, for instance in the work of Vygotsky. (Lave & Wenger, 1996, p. 143)

Concerning "the work of Vygotsky", it is important to remember that according to Vygotsky's theory, individuals do not internalize word meaning by simply "absorbing the given" but *construe* their own meanings *from socially available ones*. My analysis of Vygotsky's theory also reveals that children's learning through internalization of social meanings is not an "unproblematic process". On the contrary, Vygotsky emphasizes the importance of the emotional/motivational or affective factors in children's development and learning, represented by the functional criteria. As I investigated in chapter five and especially in chapters three and four in this thesis, the role of the "born" within the social milieu and reflecting practical thinking functional criteria (= emotional/motivational factor) is to facilitate children's learning and development along the trajectory of word meaning through solving problems, settling conflicts and reaching goals based on children's needs, interests, preferences, etc. While attaching importance to the social milieu in concept development, Vygotsky believes that it is



*instruction within school systematic education* which makes it possible to regulate and considerably speed up children's learning which in its turn enhances children's development.

While overinflating the place of the social environment in children's development and the importance of children's participation in social communities, Lave and Wenger downplay the systematic relations within the school education, including teachers' instruction. For Lave and Wenger, "identity, knowing, and social membership [active participation in social practice] entail each other" (Lave & Wenger, 1996, p. 147), while school education along with teachers' instruction are not necessarily an adequate environment for children's learning. For Vygotsky, the latter plays the major role in children's development, as I have illustrated it in Figure 11 in chapter four. Thus, they write:

...the activity of children learning is often presented as located in instructional environments and as occurring in the context of pedagogical intentions whose context goes unanalyzed. But there are several difficulties there... We think it is important to consider how shared cultural systems of meaning and political-economic structuring are interrelated, in general and as they help to coconstitute learning in communities of practice. "Locating" learning in classroom interaction is not an adequate substitute for a theory about what schooling as an activity system has to do with learning. (Lave & Wenger, 1996, pp. 147-148)

First of all, it is important to note that the activity of children is never located just "in instructional environments" for one simple reason that social practice/ environment inevitably has an impact on school practices since *school is also an essential part of social community* being culturally embedded in it. Vygotsky writes in this regard that the teacher has "to mold, cut out and shred the elements of the social environment, combine them in many different ways to serve his purpose" [*лепить, кроить, кромать и резать*]

элементы среды, сочетать их самым различным образом, чтобы они осуществляли ту задачу, которая ему нужна»] (Vygotsky, 1996(b), p. 57).

Although Lave and Wenger do not give a clear definition of what they mean by social practice or community of practice, it could be assumed that community of practice is the social milieu which surrounds children in everyday life. It could be family, friends, classmates, neighbors, etc., i.e. the social environment which regulates children's concept development within the external form of the word. The question arises how unsystematic social everyday environment could contribute more to children's learning, than "pedagogical intentions" within the systematic school education and teachers' instruction (which by no means mean that it should be ignored or underestimated). If, in Lave and Wenger's view, the systematic "context of pedagogical intentions...goes unanalyzed", then there is even less hope that unsystematic context of the social community could be considered as analyzed. There is no doubt that in some cases, social milieu could have a stronger impact on children's learning and development than school education and teachers' instruction. Lack of influence of teachers' instruction may account for the fact that teachers' qualifications vary from school to school, and sometimes schools don't create an adequate environment for optimizing the educational process. But an occasional failure of schools and teachers to play the role of leaders in children's development, is not a sufficient reason to attach the main significance in this process to the social milieu. If children benefit more from involvement in a social environment than from interacting with their teacher, it could mean that there is something wrong with the teacher (for example, cultural or psychological incompatibility between the teacher and pupils, lack of professionalism on the part of the teacher, etc.) or

the school program. It is an indication that school system requires changes to fully correspond to its purpose. It doesn't imply that children's development within the social environment (=external form of the word and everyday concepts) can contribute more to children's development than systematic school education and teachers' instruction (= internal form of the word and scientific concepts). In chapter four in the section *Implications for School Curriculum. Theoretical perspective* I analyzed in detail the importance of systematic relations for children's concept development provided through teachers' instruction.

Vygotsky's theory bridges the gap between the social community and school community. Within this theory, teachers' regulatory role as *full-fledged community members* who have extensive knowledge in community practices is to help children in *analyzing, streamlining and understanding the community of practice* with its problems, conflicts and contradictions, as I have illustrated it in Figure 11 in chapter four. In other words, Vygotsky's theory calls for a type of instruction that "exploits" children's everyday concepts, developed within the social environment. According to Vygotsky, the goal of the teacher is to raise children's practical concrete knowledge and thinking to the levels of generalization and abstraction. This accounts for Vygotsky's emphasis on the role of the teacher in children's development.

Thus, Lave and Wenger attach the main importance in children's development not to the linguistic factor, school education and teachers' instruction, but to children's *participation in social communities*. For Vygotsky, the main role in children's development belongs to *verbal communication*: first - *in social communities* (within the

external form/sense of the word) and then, which is more important - *at school* (within the internal form/meaning of the word). In Vygotsky's view, it is the school education/teachers' instruction which regulates and leads the development of children's meanings/thinking, and streamlines the unsystematic knowledge acquired within the social practice. Vygotsky's theory implies that teachers are responsible for helping children to find an orientation in social practices and lead their development through teaching them on the basis of the practical knowledge of social environment, as I have illustrated in Figure 11 in chapter four. In other words, all three scholars, Lave, Wenger and Vygotsky, understand the importance of social practices or everyday social environment in children's development. The only difference is that Vygotsky, unlike Lave & Wenger, doesn't look at it as the main factor of children's maturation.

Vygotsky's theory clearly defines the place of the social milieu and teachers' instruction in children's learning, the latter being the most important for concept formation. It also explains how the social environment should be understood, emphasizing that the social milieu is first of all a communicative situation, i.e. language. That is why for Vygotsky, children develop along the trajectory of word meaning, i.e. within the semiotic/linguistic means of mediation.

Lave & Wenger understand social environment in a much broader sense. Social practice for them, like for A.N. Leontiev, is represented by practical/physical activity *along with* semiotic and linguistic factors. Like A.N. Leontiev, Lave & Wenger don't emphasize cultural-historical individuals' development within the social milieu by means of semiotic (language) mediation. They put an emphasis on Marx's "practical activity,

which has been founded in the course of history as a result of the development of labor-based human society” [«из практической деятельности, исторически сложившейся в результате образования основанного на труде человеческого общества»] (Leontiev, 1983, p. 150). Concerning the above, Lave & Wenger write the following:

Indeed, we must not forget that communities of practice are engaged in the generative process of producing their own future... social reproduction implies the renewed construction of resolutions to underlying conflicts. In this regard, it is important to note that reproduction cycles are productive as well. They leave a historic trace of artifacts - *physical, linguistic and symbolic*... (Lave & Wenger, 1996, p. 150)

This quotation lets me come to the conclusion that Lave and Wenger, like Leontiev, underestimate the cultural phenomena and develop historical line of human evolution, which is based on physical activity/labor. Though they don't exclude the cultural (linguistic/semiotic) factors from the social practice, they don't attach the main importance to it. Lave & Wenger don't consider language to be more significant than physical/practical activity.

Lantolf & Appel's (1995) interpretation of the social milieu in their book *Vygotskian Approaches to Second Language Research* is another example of Leontiev's influence on the development of Vygotskian school in the West. Lantolf & Appel single out three types of regulation of children's cognitive development: *object-regulation, other-regulation and self-regulation*. The first regulation is connected with the social environment, since for Lantolf & Appel "environment, in the early stages of mental growth, exerts its influence on the child and the child is said to be object regulated" (Lantolf & Appel, 1995, p. 11). The other-regulation is a stage of a child's development when "the child is able to carry out certain tasks, but only with appropriate linguistically

mediated assistance from a parent, or older and more capable peer” (Lantolf & Appel, 1995, p. 12). The self-regulation is understood by Lantolf & Appel as the highest independent level of regulation.

In chapter four of this thesis, I also identified three types of regulation of children’s concept development within Vygotsky’s theory: *speech-regulation* within the social environment; *meaning-regulation* within the systematic school instruction as well as verbal communication with adults and more experienced peers; and the highest level of regulation - *self-regulation*, as I illustrated it in Figure 5 in chapter four.

It could be assumed that Lantolf & Appel’s types of regulation correspond to the types of regulation identified in this thesis. Connected with the social environment object-regulation could correspond to speech-regulation, other-regulation - to meaning-regulation. Self-regulation is interpreted in the same way in this thesis as in Lantolf & Appel’s study. Behind the seeming similarity between the above types of the concept of regulation, there is a major difference between Lantolf & Appel’s understanding of the regulatory role of the social milieu and my interpretation of it which is based on the Russian version of Vygotsky’s theory. As I have examined in chapter three and chapter four, for Vygotsky, the social milieu is not object-regulated, but people- or language-regulated (within the external form of the word). This means that in Vygotsky’s view, social milieu is first of all a communicative situation. This thesis reveals that Vygotsky’s theory is all about word/language regulation either within the unsystematic social environment (external form/sense of the word) or within the systematic school

education/teachers' instruction (internal form/meaning of the word), leading to children's inner independent verbal regulation.

Lantolf & Appel's interpretation of the social milieu as object-regulated, reflects Leontiev's influence. This is one more example of how Vygotsky could be misinterpreted. It is also an indication that there is a need for a close look at Vygotsky's theory as he wrote it in his native Russian language.

### **Following Vygotsky**

Vygotsky's untimely death made it difficult for Western Vygotskian followers to fully understand his ideas, especially for those who became interested in Vygotsky's theory before the recent democratic changes in Russia. It accounts for the lack of translated Vygotskian works along with flawed and reduced translations, as I mentioned at the beginning of the thesis. One more reason for the above difficulties is a strong influence of Russian Vygotsky's followers, who under the pressure of the communist regime had to "change" some of Vygotsky's major ideas. That is why, I think, there are not many of Vygotsky's Western followers who based their research mostly on his original theory. Even those Western scholars who in reality follow Vygotsky, are sometimes misled by many publications, translations and diversity of opinions (Engestrom, 1990) and think of themselves as reflecting the ideas of Leontiev's school of thought, as I will analyze later.

In my opinion, Engestrom's and Hedegaard's research within a Vygotskian perspective are closer to Vygotsky's original theory than other investigations in this field.

Both scholars deal with the three features of Vygotskian Activity theory which makes it possible to analyze their work from all perspectives of the theory of consciousness, i.e. developmental, mediational and social.

### Developmental and Mediational Aspects

Though I find that Engestrom's work reflects Vygotsky's ideas within all three aspects of the Activity Theory, my opinion might run counter to Engestrom's, who "defends" A.N. Leontiev's theory within the mediational aspect:

A careful reading of Leontiev's work reveals that both mediation by signs and subject-subject relations do play an important role in his theory. Proponents of the cultural-historical school repeatedly point out that communication is an inherent aspect of all object-related activities. Leontiev's (1981:219-20) account of the emergence of speech and language emphasizes the original unity of labor actions and social intercourse... So, there is a curious discrepancy between the ways Leontiev is read by critics and those sympathetic to his ideas. (Engestrom, 1990, p.7, quoted in Daniels, 1996, p. 24)

A closer look at this quotation raises certain questions and requires some explanations. Engestrom's assumption that "proponents of the cultural-historical school repeatedly point out that communication is an inherent aspect of all object-related activities", needs clarification. First of all, it is important to remember that Leontiev's object-related theory drastically underestimates the cultural factor, represented by the cultural-historical sign - language and emphasizes the historical aspect of human evolution, as I examined in chapter five. Thus, "object-related activities" and understanding communication from a Vygotskian cultural-historical perspective, seem to be two incompatible things. And what does Engestrom mean by *communication*? Is it tied to objects communication for practical purposes within the social environment,



external form of the word and functional criteria, or based on high level of generalization and abstract thinking communication within the internal form of the word?

In my opinion, Engestrom incorrectly addresses the problem. It is not the issue of whether communication is or is not an inherent aspect of “object-related activities” (no wonder that it is), but what role communication plays in “object-related activities”. Is it the main mediating/regulating tool of *producing* new word meanings, i.e. developing children’s thinking and personalities, or as Leontiev’s theory states, a necessary instrument for vocally *reproducing* or “fixing” word meanings without exerting any influence on children’s development. As I have quoted in chapter five, Leontiev writes in this regard that:

**...она [культура] образует не личностное в человеке, а то, что, напротив, является в нем безличным, как, например, общий язык, знания, распространенные в данной социальной среде предрассудки, мода и т.д... Культура... составляет предмет истории, социологии, а не психологии.**

...it [culture] creates not the traits of people’s personalities but the features which are *impersonal*, for example, common language, knowledge, prejudices, fashion, etc. ... Culture... is a historical, sociological, but not psychological subject. (Leontiev, 1983, p. 192)

And

**В процессе материального производства люди производят также язык, который служит не только средством общения, но и носителем фиксированных в нем общественно выработанных значений.**

In the process of material production people *also* produce language, which fixes socially developed meanings in addition to being a means of communication. (Leontiev, 1983, p. 151)

Although Engestrom defends Leontiev’s theory, I could not find enough evidence that he actually follows Leontiev’s ideas. While in words supporting Leontiev, in reality Engestrom is much closer to Vygotsky’s cultural-historical theory of semiotic mediation

than to the object-related historical school developed by Leontiev. If for Leontiev, language is not the main mediating tool for children's development, for Engestrom it plays a more important role. Engestrom introduces the idea of the "context of criticism" in the process of learning, according to which "learners must first of all have an opportunity to *analyze critically and systematically their current activity and its inner contradictions*" (Engestrom, 1996, p. 165). Engestrom also writes that "the context of criticism" highlights the powers of *resisting, questioning, contradicting, and debating*" (Engestrom, 1966, p. 166). Thus, Engestrom looks at language as the main mediating tool for children's development, with the help of which children can critically and systematically analyze "their [conscious] current activity". It could also be assumed that using language as a mediating tool in the process of critical analysis, children can develop their own meanings and understanding of the world. In other words, it could be suggested that according to Engestrom's theory, children develop along the trajectory of word meaning with the help of the semiotic/linguistic tool - language, which is more in line with Vygotsky's theory.

Engestrom (1996, p. 167) also pays much attention to the idea of "working at the edge of one's competence". According to this approach, teachers' instruction should include unpredictable situations. It could be called an innovative approach. This approach also corresponds to Vygotsky's theory since it states that teachers' instruction should always be a little bit ahead of children's development and contain some unpredictable, new elements. In connection with this, Vygotsky (1996b) also warns that the gap between children's readiness for the new and the level of difficulty of the

unfamiliar material should be carefully “measured” by the teacher. Figuratively speaking, the teacher could be compared to a person who stands on top of a mountain and throws a rope to those standing at the bottom, while attentively watching and regulating children’s climbing, i.e. the development of their progress. Only those individuals who are motivated by the teacher’s instruction, have interest in what they are doing and the desire to act are capable of exploring these new adventurous opportunities. It means that “working at the edge of one’s competence”, dealing with the new, calls for using *an emotional/stimulating factor* in the process of children’s development, represented by the functional criteria, as I analyzed in chapters three and four. In other words, this approach implies that for motivational purposes and better educational results teachers should take into account the characteristics of children’s *personalities*, their *interests*, *desires*, *preferences*, etc. Thus, Engestrom’s innovative approach is connected to Vygotsky’s theory on the functional criteria.

Like Engestrom, Hedegaard (1996) also attaches importance to the emotional/stimulating factor/functional criteria in children’s development under the guidance of the teacher. She writes that

Instruction can build upon these common features [children’s traits of character] if it takes into account that children vary in their speed and form of learning. (Hedegaard, 1966, p. 191)

Referring to the emotional factor, Hedegaard thinks that “*motivation and interest* within teaching practices must be developed in children” through “*contrasts, problems and conflicts*” (Hedegaard, 1996, p. 185). For Hedegaard, children develop under the guidance of teacher’s instruction (internal form of the word, scientific concepts) who

“plan for qualitative changes in the teaching toward a certain *goal*” (Hedegaard, 1996, p. 191). While the teacher regulates or guides children’s behavior within their zones of proximal development and school systematic education, children are involved in “*class dialogue, group work, and task solutions*” (Hedegaard, 1996, p. 192). In Hedegaard’s study, “children’s research activity was central in these guided actions, which gradually led children to critical evaluation of the concepts” (Hedegaard, 1996, p. 192).

Thus, like Vygotsky and Engestrom, Hedegaard, supports the idea that children develop within a communicative situation along the trajectory and under the regulation of the word meaning, i.e. language, in general, and teacher’s instruction (internal form of the word and scientific concepts), in particular.

### Social Aspect

With regard to the social aspect of the Activity Theory, Engestrom (1996) further develops the ideas put forward by Lave & Wenger (1996), concerning the importance of social practice/ milieu in children’s learning. But unlike Lave & Wenger, who attach the main importance to the social practice and community (external form of the word) in children’s maturation, Engestrom suggests a different approach. Still looking at social environment as an important factor of children’s development, he also speculates that teachers’ instruction (internal form of the word) within the systematic school education should play a major role in the regulation/guidance of children’s behavior. While Lave & Wenger propose an approach based on the notion of learning as gradually increasing participation in a community of practice, Engestrom’s “logical solution would be to create good communities of practice within schools” (Engestrom, 1996, p. 163). It will

allow teachers to combine children's physical participation in the social community along with the maturation of their functional practical thinking (external form of the word), on the one hand, and their development under the regulation of the teacher's instruction (internal form of the word), on the other.

Engestrom's approach to the social milieu and its place in children's development is close to Hedegaard's. Hedegaard (1966) also thinks that teachers should "take advantage of" children's everyday experiences (external form of the word) and build on them for their instruction, while helping children to develop their abstract thinking and Higher Psychological Functions. Hedegaard writes the following in this regard:

The teacher's planning must advance from the general laws to the surrounding reality in all its complexity. In order to explain these laws the teacher must choose concrete examples that demonstrate the general concepts and laws in the transparent form. Whereas the teacher's planning must advance from the general to the concrete, the children's learning must develop from preconceived actions to symbolization of the knowledge they obtain through their research, finally resulting in a linguistic formulation of relations. Initial activities must be oriented toward concrete exploration. In our teaching experiment such activities include exploratory analysis of objects, museum visits, and films. In the next step, children must be able to symbolize the relations they perceive through their research activity. Finally, the children must be able to formulate the relations they have perceived. (Hedegaard, 1996, p. 180)

This quotation shows Hedegaard's attempt to unite children's everyday experience (external form of the word) and school education/teacher's instruction (internal form of the word). Like Vygotsky and Engestrom, Hedegaard attaches the main importance in combining social environment and school education, to the teacher (internal form of the word). In other words, for Hedegaard it is the social milieu which should be integrated into the school environment (not vice versa). The teacher's goal is to help children to understand and streamline their everyday experiences. According to

Hedegaard, the main role in this educational process belongs to language, with the help of which children analyze and generalize their concrete activity. Thus, like Vygotsky and Engestrom, Hedegaard looks at the social environment as a very important, but not the main factor of children's development, attaching the main importance in concept maturation to the systematic school education, teacher's instruction and verbal communication in general.

### Rediscovering Vygotsky

This section seeks to examine, in my opinion, the most brilliant recent theoretical study on Vygotsky's theory, done by Fred Newman and Louis Holzman (1995). Their in-depth study analyzes not only Vygotsky's ideas, but also the works of the "fathers" of the communist doctrine Marx and Engels, who inspired Vygotsky to develop his tool-mediated approach to explaining the evolution of human thinking. One can not help noticing that Newman & Holzman's investigation is made with a great respect for all the details of Vygotsky's research. They examine every important aspect of Vygotsky's theory, making their way through the unexplored depths and intricate paths of Vygotsky's "thoughts and words". In their attempt to have a "true" understanding of what Vygotsky wanted to say in his works, Newman & Holzman go to the roots of Vygotsky's theory.

Without underestimating some significant ideas generated by the theoretical studies from a Vygotskian perspective (for example, J. Wertsch, 1981, 1985, 1991), Newman and Holzman's research (1995) stands out, in that it is the closest one to Vygotsky's original theory and could be looked at as its logical continuation.

## Tool-and-for-Result Analogy: Developmental and Mediational Aspects

In their analysis of Vygotskian major concepts, Newman & Holzman came up with a new interpretation of the role of tools as mediators of people's development. They make a distinction between tool-for-result and tool-and-result activity, since, in their opinion, "there are at least two different kinds of tools" (Newman & Holzman, 1995, p. 37). They argue their position in this way:

There are tools that are mass produced (hammers, screwdrivers, power saws, etc.), and there are tools designed and produced typically by tool-and-die-makers. i.e. tools specifically and uniquely designed and developed to assist in the development of other products (including often other tools). (Newman & Holzman, 1995, p. 37)

And

Often we must create a tool which is specifically designed to create what we ultimately wish to produce. The tools of the hardware store and the tools of the tool- and die-maker are qualitatively different in a tool-for-result/tool-and-result sort of way... Tools for results are analogous to (as well as producers of) cognitive equipment (e.g. concepts, ideas, beliefs, attitudes, emotions, intentions, thought and language) that are complete (fully manufactured) and usable for a particular purpose. The toolmaker's tool is different in a most important way. While purposeful, it is not categorically distinguishable from the result achieved by its use... It is the *productive activity* which defines both - the tool *and* the product (the result)... Expressed more positively, they are inseparable from results in that their essential character (their defining feature) is the activity of their development rather than their function. For their function is inseparable from the activity of their development. They are defined in and by the process of their production. This is not to say that such tools-and-results are without functions. It is, rather, to say that the attempt to define tools-and-results by their function (as is the case with tools for results) fundamentally distorts what they are (and, of course, in the process, what definition is)... Every Vygotskian... notes how important the concept of tool is for Vygotsky. But which tool (meaning of tool) do they employ? (Newman & Holzman, 1995, pp. 38-39)

It seems interesting to analyze how Newman & Holzman's study could fit in with Vygotsky's theory. To be more precise, I plan to examine what is in common between Newman & Holzman's tool-and-for-result methodology and the conclusion I draw in this thesis, concerning main and subordinate mediating tools. That is, language/word meaning and functional elements, as I have illustrated in Figure 12 in chapter five. Newman and Holzman's understanding of tools as purposeful tools-for-results and tools-and-results could be analogous to the subdividing of Vygotsky's mediational aspect into the main and subordinate mediating tools. According to Figure 12, subordinate mediating tools are expressed in Vygotsky's theory by the functional elements, i.e. subjected to certain goals "*concepts, ideas, beliefs, attitudes, emotions, intentions, thought and language*" used *for the purpose of* solving everyday problems and conflicts. Thus, Vygotsky's functional elements could be looked at as tools-for-results, which are "specifically designed to create what we ultimately wish" to attain.

Vygotsky's main mediating tool - language/word meaning - "is not categorically distinguishable from the result achieved by its use... It is the productive activity which defines both - the tool and the product (the result)". The productive activity could be determined by the levels of the development of High Psychological Functions: the higher the level of concept/consciousness development or the more developed the meaning is - the higher the productive activity is. In this respect, the main mediating tool - language meaning - is not "distinguishable from the results achieved by its use". That is, language meaning/tool creates language meaning/result, or language meaning → language meaning. It could be said that the main mediating tools "are inseparable from results in



that their essential character (their defining feature) is the activity of their development rather than their function". It is also true, that "it is not to say that such tools-and-results are without functions" , but "it is, rather, to say that the attempt to define tools-and-results by their function...fundamentally distorts what they are", as I have quoted. This unity of tools-and-results/Higher Psychological Functions/internal form/meaning of the word and tools-for-results/Elementary Psychological Functions/external form/sense of the word, represented by functional elements I illustrated in Figure 9 in chapter four. Thus, though inseparable from the functional criteria, tool-and-result language meaning is defined not by its function, but by a qualitatively different from tools-for-results level of generalization along with abstract (not tied to visual objects) thinking. At the same time, as I have analyzed in chapter four, the function of tools-and-results "is inseparable from the activity of their development", since language meaning (tools-and-results) regulates the development of functional elements (tools-for-results), which in their turn, regulate the development of language meaning (tools-and-results). This close unity language meaning/tools-and-results→functional elements/tools-for-results→language meaning/tools-and-results under the "leadership" of language meaning is described in detail in chapter four in the section *Education and Language*.

With regard to the research arguments I make in this thesis, Newman & Holzman's investigation could be interpreted in the following way: for Newman & Holzman, language meaning/tool-and-result (internal form of the word) is the main mediating tool and the main trajectory of concept development while the functional criteria/sense/tool-for-result (external form of the word) is a subordinate mediating tool.

Despite the close unity between language meaning and sense/functional criteria, it is the language meaning which leads to the development of Higher Psychological Functions and distinguishes humans from other living beings. In other words, as Newman & Holzman's write, the ability to create new meanings from other meanings is an "essentially human" phenomenon:

No doubt, there is communication among (and perhaps even between) the bees and spiders but there is no meaning. Animals communicate (some make honey) but they don't make meaning. For us, meaning is to be located precisely in the human capacity to alter the historical totality even as we are determined (in our societal particularity) by it. The activity of making meaning is a fundamental expression of revolutionary activity. It is the toolmaker (our species) making tools-and results using the predetermining tools of the hardware store variety (including nature and language) and the predetermined tools of mind developed by them to create something - a totality not determined by them. It is the meaning in the emerging activity, not the preconceived imagining followed by its realization, which is transformative, revolutionary and *essentially* human. (Newman & Holzman, 1995, p. 49)

The toolmaker's predetermining tools [tools-for-result] could be compared to the functional criteria. While creating "a totality - not determined by them" (meaning/tools-and-results), these predetermined tools of mind (functional criteria, tools-for-results, social environment) are themselves created by or embedded in the independent qualitatively new totality (tools-and-results). The spinning of *meaning/internal form of the word* → *sense/functional elements/external form of the word* → *(new) meaning/internal form of the word* wheel is understood by Newman & Holzman as "human activity in all its infinitely complex variations" which is "always changing that which is changing, which is changing that which is changing" (Newman & Holzman, 1995, p. 46). Newman & Holzman's idea about the distinction between communication for practical purposes (tools-for-results) and communication that leads to creating new understanding of the

world/meanings (tools-and-results) could be compared to the semantic interpretation of the word within Vygotsky's theory with its sense and meaning. It could be said that Newman & Holzman, like Vygotsky, think that the leading role in the process of concept development belongs to the meanings, represented in the *internal form of the word*, as I illustrated in Figures 10 and 11 in chapter four. Since according to these Figures, teachers' instruction within the systematic school education also belongs to the *internal form of the word*, I could conclude the following: it could be suggested that Newman & Holzman's theory supports the idea that the leading role in the process of concept development belongs to teachers' instruction. It implies that the former pattern of children's development *language meaning/tools-and-results*→*functional elements/tools-for-results*→*(new) language meaning/tools-and-results* could be changed for teachers' *instruction/meaning*→*functional elements/children's meaning derived from the sense*→*children's new meaning derived from teachers' instruction*, as I illustrate in Table 4.

Table 4

Children's development under the regulation of the teacher. East -West perspective.

Teachers' instruction/meaning	→ Children's practical thinking/sense	→ Development of children's word meaning/Higher Psychological Functions/thinking
- Word meaning	- Word sense	- Teachers' instruction/meaning +
- Higher Psychological Functions	- Emotional/motivational factor, i.e. functional elements	- Children's practical thinking/sense
- Thinking		

Thus, according to Newman & Holzman's study, the main trajectory and mediating tool of children's development is language meaning. A detailed analysis of

how the above table fits in with classroom ESL practices is provided in chapter four in the section *The Role of Instruction*. I also give in that section a concrete example of how teachers' instruction can draw from children's emotional/motivational factor (=functional elements) and then lead to the development of children's thinking. And, finally, in chapter seven I will again return to this East-West tool-and-result analogy to draw some conclusions concerning its implications on ESL curriculum, teaching and learning within Vygotskian Schools of Thought.

### **Practical-Critical Activity: Social Aspect**

Newman & Holzman (1995) write that Vygotsky's tool-and-result approach "identifies practical-critical revolutionary activity as what people do", i.e. "the practical-critical activity of everyday life", which "transforms the totality of what there is" (Newman & Holzman, 1995, p. 41). They understand practical-critical activity in the light of "the distinction between changing *particulars* and changing *totalities*". In their view, this distinction is "vital to understanding tool-and-result methodology" (Newman & Holzman, 1995, p. 41). According to Newman & Holzman, the distinction between changing particulars and totalities (i.e. between practical and critical activity accordingly) corresponds to the "distinction... between society and history as human life spaces" (Newman & Holzman, 1995, p. 43). In Newman & Holzman's view, adapting to history means changing totalities while adapting to society means

...carrying out certain acts, behaviors and roles appropriate to and having exchange value within the narrow confines of this particular time and place (moment) in world history. (Newman & Holzman, 1995, p. 44)

For Newman & Holzman (1995), tool-and-result critical activity (in our case - language meaning) is an historical (I would argue, cultural-historical) phenomenon while tool-for-result practical activity (practical thinking/functional criteria) reflects societal values in a particular context.

The relations among tool-and-for-result activity, practical-critical activity, meaning within the internal form of the word and sense within the external form of the word, Elementary and Higher Psychological Functions are illustrated in Table 5.

Table 5

Content of Practical-Critical Activity

<b>P R A C T I C A L - C R I T I C A L      A C T I V I T Y</b>	
<b>Tool-for-Result Activity</b>	<b>Tool-and-Result Activity</b>
<b>Word Sense/Functional Criteria</b>	<b>Word Meaning</b>
<b>External Form of the Word</b>	<b>Internal Form of the Word</b>
<b>Elementary Psychological Functions</b>	<b>Higher Psychological Functions</b>
<b>Development within social milieu</b>	<b>Cultural-Historical Development</b>

As I have examined in the previous section, Newman & Holzman attach the main importance in children's development to the word meaning, represented in the internal form of the word, i.e. to the critical activity. Unlike Lave & Wenger (1996), who believe that "communities of practice [external form of the word] are engaged in the generative process of producing their own future", Newman & Holzman think that activity not connected to producing meanings (internal form of the word) "is not activity at all". "Rather, it is either societally determined behavior or the motion of natural (physical,

chemical) phenomena” (Newman & Holzman, 1995, p. 46). Warning against attaching the main importance in the process of individuals’ development to the unsystematic social environment or society, Newman & Holzman write the following:

As human beings, we all live simultaneously in history (the open ended , seamless totality of existence) and in society (the name given to a specific spatio-temporal institutional arrangement 'within' history); we all live in a history/society. All societies necessarily adapt their members to this dual location and dual identity, but they vary widely in the degree to which they require adaptation just to themselves or to history as well. Modern liberal industrial societies, the ultra-pragmatic United States in particular, adapt their members to society to such an extent that most people do not even know that they are in history - or that history is something to which one can adapt. (Newman & Holzman, 1995, p. 43)

Newman & Holzman’s understanding of the social milieu/external form of the word as an important but not the main factor of people's development is in line with the argument I have made in this thesis.

## **Summary and Conclusions**

In this chapter I examined Western interpretations of the main features of Vygotskian Activity Theory (developmental, mediational and social aspects) within Vygotsky’s and Leontiev’s schools. The examination is aimed at analyzing how the Western interpretations of the main features of Vygotskian Activity Theory could fit in with the conclusions I draw from this thesis, concerning the role of the language/teacher's instruction in children's development.

As I mentioned at the beginning of this chapter, Western research within Leontiev's theory is represented by the works of Lave & Wenger (1996) and Lantolf & Appel (1994). According to Lave & Wenger, it is the social community and people's

participation in it which is at the helm of children's concept development, while school milieu and teachers' instruction is not an adequate condition for the maturation of Higher Psychological Functions. For Lave & Wenger, language is not the main tool of children's development within the social environment, but just one of its components, not more important than a physical factor. While Lave & Wenger underplay the role of language within the social milieu, Lantolf and Appel pay even less attention to it. For Lantolf & Appel the social environment is not language/people regulated, but object-regulated. Lantolf & Appel's approach reflects Leontiev's theory, according to which social environment is first of all relations between objects, not between people.

Engestrom's, Hedegaard's and Newman & Holzman's works were examined with regard to Vygotsky's original "uninterpreted" theory. The investigation of their research (as opposed to Leontiev's school) revealed that all three scholars follow Vygotsky's approach with respect to the main features of children's concept/consciousness development. In other words, Engestrom, Hedegaard and Newman & Holzman look at language as the main mediating tool and developmental trajectory of the maturation of Higher Psychological Functions. My analysis of their investigations leads me to the conclusion that like Vygotsky, they also attach the main importance in children's development to systematic teachers' instruction, not to the social environment.

Engestrom's understanding of learning in the "context of criticism" emphasizes that children should critically and systematically analyze their current activity and its inner contradictions through a collaborative activity which implies resisting, questioning, contradicting and debating. Engestrom also pays much attention to what is called in this

chapter an innovative approach, according to which teachers' instruction should contain some new difficult elements, which could stimulate children to "work at the edge of one's [their] competence".

Hedegaard stresses the importance of motivation in children's development, which is in line with Vygotsky's theory on the emotional/motivational factor, represented by the functional criteria. For Hedegaard, children's motivation and interests in the content of teaching could be developed through contrasts, problems and conflicts introduced into class dialogue, group work and task solutions.

My analysis of Newman & Holzman's study within the main features of Vygotskian Activity Theory revealed the following pattern of children's development: *teachers' instruction/meaning* → *functional elements/children's practical thinking/sense* → *children's new understanding/meaning derived from teachers' instruction*. It is important to note that according to Vygotsky and the analysis I made in this thesis, approaching children's functional thinking to thinking in concepts through teachers' instruction is not a linear process. It reflects uneven children's development and requires long-term observation and analysis on the part of teachers which is consistent with "between-type" development, analyzed in chapter four.

This brings me to my second main research question:

*How can Western interpretations of Vygotskian School of Thought fit in with the major conclusions within Vygotsky's theory concerning the leading role of the teacher in children's development?*

I provided a schematic illustration of my answer to this question in Table 4.



Table 4

Children's development under the regulation of the teacher. East -West perspective.

Development of children's word Teachers' instruction/meaning → Children's practical thinking/sense →		Development of children's word meaning/Higher Psychological Functions/thinking
- Word meaning	- Word sense	- Teachers' instruction/meaning + - Children's practical thinking/sense
- Higher Psychological Functions	- Emotional/motivational factor, i.e. functional elements	
- Thinking		

In other words, *teachers' instruction* (with well developed meaning, Higher Psychological Functions/thinking) *speeds up children's development* (based on the sense they derive from life experience/social milieu according to how functional/useful this life experience is for them, how much it motivates them and reflects their personal needs and emotions) *and upgrades this development to thinking in concepts*. Thus, the regulation of children's behavior by the teacher is based on using emotional/motivational factors of children's development (contrasts, problems, conflicts, goals, innovative approach and individual approach). Teachers' efforts aimed at speeding up children's development through employing emotional/motivational factors lead to forming by children a new kind of meaning. Children's thinking based on the new meaning is understood in this thesis as *qualitatively* different from functional practical thinking. Indeed, represented by the functional elements and tied to objects practical thinking (external form of the word/sense) draws from the emotional/ motivational factor. The new meaning (internal form of the word) reflects children's ability to reach higher levels of generalizations and abstractions. According to Newman & Holzman's understanding of activity, the

teacher-pupil/student relations could be graphically depicted as teacher's instruction/meaning (1)→ children's development within the social environment/sense (2)→ new meaning acquired through teachers' instruction (3) ..., where the word meaning of teacher's instruction (1) "is always changing that which is changing [2], which is changing that which is changing [3]" (Newman & Holzman, 1995, p.46). In the next chapter I will examine in detail Newman & Holzman's approach to concept development as a "changing phenomenon".

## Chapter Seven: Implications for ESL Curriculum, Teaching and Learning within Vygotskian Schools of Thought

In this chapter I draw some conclusions concerning the role of the teacher in second language teaching and learning within Vygotsky's theory. The conclusions are drawn from the theoretical research which I conducted in the previous chapters. This chapter seeks to examine in detail the tool-and-result formula (language/meaning→ language/meaning), which unites Eastern and Western research within Vygotskian school.



Figure 13

### Tool-and-result East-West formula of children's development

The analysis of the above East-West formula is based on the interpretation of Vygotsky's theory by his Russian colleagues, most of whom are modern Vygotskian followers.

Thus, this chapter addresses the third research question:

*What could a comparative East-West analysis of Vygotskian Schools of Thought mean for the role of the teacher as a mediating agent in second language teaching and learning?*

It is important to note that English in such phrases as "speaking English and thinking in English" is understood in this chapter as English as a second language.

## Learning ESL as a Conscious Activity: the Role of the Teacher

Careful reading and analyzing the part of Vygotsky's theory dealing with TESL leads to the conclusion that Vygotsky puts his own sense into the word "consciousness". It seems that he understands a conscious approach to TESL as a close unity of teaching/learning a second language, on the one hand, and developing children's thinking through the maturation of word meanings, on the other. This understanding of consciousness with regard to TESL allowed the Soviet Vygotskian school to come up with the concept of "language activity" as opposed to the concept of "language behavior".

According to the concept known in Russia as "language behavior" (Valdman, 1966), children learn ESL through the *reproduction* (in appropriate circumstances) of earlier memorized phrases without being able to use their knowledge in new situations, i.e. to *produce* the language. In other words, "language behavior" approach is based on teaching and learning ESL through teaching and learning the *language*, which is understood as words and phrases (in artificial settings). The *accumulation* of words and phrases and the ability to exchange and substitute them according to the circumstances is supposed to develop children's ESL communicative skills. Thus, it is the *quantitative criterion* which plays the main role in the "language behavior" approach. An example illustrating the quantitative "language behavior" approach or understanding language as an accumulation of memorized words and phrases, is given in this chapter in the section *Developing ESL Curriculum and Situation*. It shows that learning ESL words and even

correctly using them is not a guarantee that children will be able to easily speak a second language in everyday life situations, if ESL teaching is not connected to children's personalities and thinking.

Vygotsky's "language activity" approach is based on teaching/learning a second language through *thinking*. For Vygotsky, the ability to speak English or write in English as a second language (the same applies to a native language) in new life situations is connected to the ability to think in a second language. In Vygotsky's view, language is not an accumulation of words, phrases and sentences, but - a unity of *words and thoughts*. The thoughts in this unity play the most important role, since "the word is almost always ready, when the concept [thought] is ready despite the common belief that the concept is always ready when the word is ready" [**«Слово почти всегда готово, когда готово понятие. В то время как обычно полагали, что понятие почти всегда готово, когда готово слово»**] (Vygotsky, 1996, p. 295). In contrast to the "language behavior", Vygotsky's "language activity" approach is based not on the quantitative criterion and accumulation of "ready-made" knowledge, but on the *qualitative criterion* and *development* of knowledge through the maturation of word meaning and thinking. In Vygotsky's view, the main factor accounting for children's linguistic qualitative changes through thinking is verbal communication, i.e. children's verbal communication → through their verbal communication with other people, as I have analyzed in chapter four. Contributing to children's concept development "other people" are understood by Vygotsky as adults, teachers and more experienced peers. As I have examined in this thesis, it is the teacher-pupil/student communication that acquires a special significance for learning ESL due to its systematic, goal-directed character.

### Teaching ESL within Activity Theory

Three aspects of Vygotsky's Activity Theory can be identified: developmental, mediational and social. With regard to teaching and learning ESL, these aspects of the theory of consciousness could be interpreted in the following way: *teaching/learning ESL is the process of developing and stimulating children's thinking by means of speaking English within communicative situations through the mediation of a more developed/mature language meaning provided by the teacher*. It could also be said that according to Vygotskian school, learning a second language is a qualitative process of (re)constructing, changing, complementing children's understanding of the world under the verbal guidance/regulation of the teacher through "resisting, questioning, contradicting and debating" (Engestrom, 1966, p. 165) as well as through "class dialogue, group work and task solutions" (Hedegaard, 1996, p. 192).

In chapter six, I stated that this constructive qualitative activity of "building" a second language is described by Newman & Holzman as "always changing that which is changing, which is changing that which is changing" (Newman & Holzman, 1995, p. 46). This "spinning wheel" of the (re)constructing tool-and-result language activity stimulating the development of thinking is at the core of the process of learning ESL within Vygotsky's Activity Theory and its Western interpretation examined in this thesis. The purpose of learning English as a second language by means of communication (i.e. speaking English within communicative situations) and writing in English as a second language leading to development of children's thinking is to acquire new knowledge, thoughts, intentions through *interpreting* the information. This individual interpretation

of information influences and changes the relations between/among those involved in the process of communication which, in its turn, leads to further interpretation of the information and changing of children's thinking. The new interpretation of the information again results in changing the relations between the participants of the act of communication (due to the development of children's thinking). The driving force of this process is the *need* of the participants to say something, that *motivates* them to continue their communicative activity, or the activity of thinking. According to the above understanding of the process of communication within Vygotskian theory, the "spinning wheel" of the acts of communication continues its rotation till the need is satisfied. This interpretation of (ESL) communication as an indivisible unity of (first) thought and (then) word, leads to the conclusion that *it is through communication that people maintain their activity as human beings, i.e. as thinking individuals*. Indeed, if communication (either oral verbal or inner/silent verbal communication) is based on developing thinking and consciousness, it (communication) is the main condition for all other individuals' conscious/intellectual activities. In the light of this conclusion which is the main argument of my thesis, the verbal relations between ESL teacher and pupils acquire a special importance.

### Teacher-Pupil ESL Communication

According to conventional practice, teacher-pupil communication can develop in two ways. It can be communication based on formal relations where all participants (the teacher and children) behave according to their social status or play the roles assigned to them by the existing social relations. In this case the teacher as an official authority gives

instructions to the pupils and they follow these instructions just like patients follow the advice of the doctor.

Teacher-pupil communication could also be less official and much more informal and personal, i.e. communication between/among individuals. This kind of communication seems to fully correspond to Vygotsky's understanding of the teacher as a mediator of children's personalities, their thinking and consciousness. Thus, according to Vygotskian school, there should be personal relations between the teacher and pupils, which could lead to and motivate the development of children's thinking. In this case, the role of the teacher is to understand children as thinking personalities as well as to reveal and guide the development of such components of children's personal characteristics as based on previous experience children's opinions, feelings, emotions and interests.

According to the above, we can conclude the following concerning teacher-pupil communication within Vygotsky's understanding of the process of teaching ESL:

1. ESL teachers should treat children as communication *partners and individuals*.

If the relations between the teacher and children lack a personal touch, there can be no goal inherent in real life communication between people as individuals, i.e. to change/complement/develop these relations through the language activity which is "always changing that which is changing, which is changing that which is changing" (Newman & Holzman, 1995, p. 46).

2. ESL teachers should provide *motivation* for pupils' unofficial/personal communication, i.e. motivation which is based on children's personal characteristics, desires and preferences, which develops children's thinking and draws from real life. In



other words, in order to motivate children to speak English, the teacher should “create” a *need* for ESL communication. This need should be based on real life problems and goals and take into account children’s individual traits of character. Only this kind of motivation can challenge children’s thinking, and “spin the wheel” of a second language activity.

Thus, according to Vygotsky, ESL teacher-pupil relations should be based not just on formal/official communication within school regulations, but rather on the communication between/among individuals, i.e. such communication which can provide a psychological climate for ESL teacher-pupil language activity as opposed to language behavior. The main features of this activity are examined in the next section.

### **Main Characteristics of Teacher-Pupil Language Activity within TESL**

The main characteristics of teacher-pupil language activity within TESL are based on the above analyzed tool-and-result East -West formula of children’s development, illustrated in Figure 13 at the beginning of the chapter.

According to this formula, ESL teacher’s instruction/communication should draw from children’s emotional/motivational factor/functional elements to provide for the development of children’s ESL thinking/speaking within Vygotskian Activity Theory. This section seeks to examine in detail the main features of ESL teacher-pupil language activity in the light of Vygotsky’s theory of consciousness.

According to the East-West comparative analysis of Vygotskian schools, which I have provided in my thesis and summed up in this chapter, I am able to identify three

main characteristics of ESL teacher-pupil language activity: an individual approach to teaching ESL, a situated approach to teaching ESL and an innovative approach to teaching ESL. All three approaches are based on functional elements which are connected to emotional/motivational factor, reflect three aspects of Vygotskian Activity Theory and lead to the development of children's thinking, as I illustrate it in Figure 14.

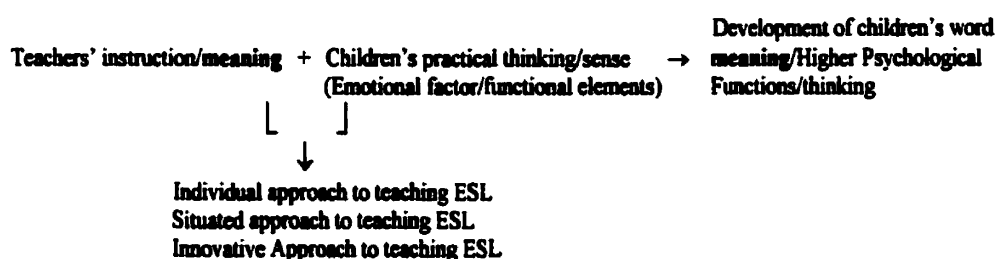


Figure 14

The source of the main characteristics of ESL teacher-student language activity within tool-and-result East-West formula of children's development

### Individual Approach to Teaching ESL

While this approach is important for educational practices in general, it seems to play an even more significant role in developing ESL curricula. Speech is such an individual phenomenon that it does not seem possible to teach speaking a second language without paying special attention to the individual/personal attributes of children. Indeed, children's speech *is* a means of expressing their personal feelings, emotions, opinions, desires, preferences, etc. Thus, Rogova writes that "teaching a foreign language requires individual approach, perhaps, more than teaching any other subject" [обучение иностранному языку, пожалуй, в большей степени, чем какому-либо

другому предмету, требует индивидуального подхода] (Rogova, 1977, p. 46). Soviet psychology interprets individuality within two aspects of people's/children's characteristics, i.e. individual and personal (Leontiev, 1983; Shevandrin, 1995). In the next section I will examine in detail these aspects of people's characteristics and their importance for a second language teacher and ESL curriculum.

### Individual and Personal Characteristics of Children

Individual characteristics of people/children are represented according to A.N. Leontiev (1983) and Shevandrin (1995) by such inherited traits of character as temperament, talent for doing something or lack of it. For ESL teachers, individual characteristics of children mean that some of the children are more capable while others - less. It implies that individuality should be looked upon as a given or an *objective factor* which should be taken into account by ESL teachers in the process of developing ESL curriculum. In other words, children's individual characteristics are understood as genetic, static, inflexible. Indeed, it is well-known, that sometimes regardless of how good a teacher is and how hard children work, the results of children's efforts are still different. That is, even among those pupils who study equally hard and have the same teacher, the achievements are not the same due to children's different individual characteristics. For example, a very active child likes to speak English, express his/her opinion or read aloud since for this child it is a joy to be the center of attention. For a child who is by nature shy, it is easier to express himself/herself in writing than orally. This is an example of how temperament could have an impact on children's learning. It could also happen that children with the same temperament achieve different results due

to the simple fact that for some of them it is just easier to do certain kind of work while for others it is much more difficult. This phenomenon is understood as an objective factor which should be taken into account by ESL teachers. The objective factor may account for the fact that different children have different zones of proximal development. This may give an impression that teachers cannot do much to enhance children's development and learning... if there did not exist the subjective factor of children's development. That is, the factor which allows teachers to considerably extend children's ZPD.

Thus, alongside with the objective factor, individuality can depend on a *subjective factor*. Children as individuals are characterized not only by their inherited traits of character and natural talents, but also by their disposition to work, which is understood in this thesis as subjective individual attributes which can have an impact on children's objective factors. It is children's individual disposition to work or study which could be further developed and enhanced by English teachers and allow children to more or less overcome what they inherited from their parents. This means that children's achievements in developing language activity depend not only on their inherited characteristics, but also on their desire to learn how to develop their individual styles of working. That is, how to systematically employ certain methods and ways of learning and remembering, that are typical of individuals and can be developed through teachers' mediation. Merlin & Klimov refer to it as "individual combination of methods and ways of activity by a person that provide for the best results" [*индивидуально-способное сочетание приемов и способов деятельности, обеспечивающих наилучшее ее выполнение данным человеком*] (Merlin & Klimov, 1967, p. 111).

It could be suggested that it is the subjective factor of individuality that is more important for ESL teachers. While ESL teachers cannot change the objective reality directly, they can enhance children's inherited nuances indirectly by guiding the development of the subjective factors of children's individuality, i.e. children's disposition to work. To identify, mediate and enhance children's inherited characteristics and their disposition to work, it seems necessary for ESL teachers to carefully observe and study children's development as personalities.

Despite the importance of the objective and especially subjective factors of children's individuality for ESL teachers, these aspects do not seem to play the main role in teaching a second language. It is a well-known fact that very often children are not doing well despite the fact that ESL teacher appropriately evaluates their objective characteristics and helps pupils to develop their subjective styles of working. This could account for the fact, that ESL teachers may ignore or underplay children's personal characteristics.

Personal characteristics of children are understood by A.N. Leontiev (1983) as reflecting a certain qualitative stage of children's development as *members of society*. They are directly connected to children's *feelings, thoughts, interests, desires, preferences* within a societal context. That is, they are based on such emotional/motivational factors of children's development as children's *attitude* to the values determined by the society in which they live. It implies that pupils' personal characteristics are more closely related to the process communication in English as a second language than objective and subjective aspects of children's individual

characteristics. Indeed, based on societal values, personal characteristics of children can serve as a *common ground* for ESL communication, i.e. for construing children's meanings from socially available ones through "analyzing critically and systematically their [children's] current activity and its inner contradictions" (Engestrom, 1996, p. 165) by means of "resisting, questioning, contradicting, and debating" (Engestrom, 1966, p. 166). Having a common ground for ESL communication implies that within the personal characteristics of children, ESL teachers have more opportunities to mediate and enhance children's development than within the individual ones. For example, ESL communication, based on societal values, can allow English teachers to better understand children, analyze their behavior and enhance their performance. ESL teachers can accomplish this by introducing into their instruction (through questions, debates, problems) some issues that cannot leave children indifferent. That is, the issues that will get children engaged or draw them in the process of learning and eventually enhance their performance in English. In the section *Situated Approach to Teaching ESL* I give a concrete example (about Halloween), illustrating how teaching a second language within a context could be implemented.

It is easy to notice that an individual approach to teaching ESL, that reflects children's personal characteristics, is connected to all three main aspects of Vygotsky's Activity Theory. Thus, (re)negotiating societal meanings through appropriate communication in English as a second language is connected to the *developmental aspect* with its *main mediating tool* - language meaning (teacher's/more capable peers mediation), and *subordinate mediating tool* - emotional and motivational

factors/functional criteria. Since meanings are drawn by children from communicative situations within their social environments, an individual approach must also reflect the *social aspect* of Vygotsky's Activity Theory.

### Individual Approach and Motivation

An individual approach (especially its personal aspect) plays a major role in the process of motivating thinking and speaking English. This implies that the goals of ESL teachers must accommodate and respect children's personal needs, feelings and thoughts that stimulate pupils to learn a second language. To reach this goal ESL teachers must pay special attention to such components of children's personal characteristics as pupils' *life experience, spiritual needs, views, emotions, children's status as team members, etc.* Teaching that ignores children's personal characteristics cannot "spin the wheel" of children's thinking activity which according to Vygotsky's theory, is a major factor of motivating children to get involved in a conversation in English (chapter six, p.135). Indeed, it does not seem possible for ESL teachers to provide a long-lasting motivation for learning a second language without taking into account children's personal emotions and attitudes as I have illustrated in Figures 10 and 11 in chapter four. Rubinstein wrote in this regard that "internalization of external motives... always depends on inner conditions" [*внешние причины... всегда действуют через внутренние условия*] (Rubinstein, 1957, p. 307). Within Vygotsky's theory, external motives for communication in a second language can be understood as motivation of children's speaking/thinking through setting up authentic *problems* and *goals* within a communicative situation. Dependence of external motives on the inner (personal)

conditions could imply that goal-directed situated motivation within an individual approach to teaching ESL requires that ESL teachers should develop *individual situations*, i.e. such situations that are linked to children's personal characteristics and interpreted through the latter. An individual approach makes it possible to ensure that every pupil is interested in their language activities. Speaking a second language within such an approach becomes not only pupils' duty, but also reflects a real need to express, discuss, (re)negotiate and share some problems connected to children's thoughts, ideas, desires.

### Situated Approach to Teaching ESL

A situated approach to teaching ESL is a logical continuation of an individual approach. Generally speaking, it means that according to Vygotsky's theory, teaching ESL should be based on introducing into ESL curriculum situations, reflecting children's individual and -what is more important - personal characteristics within an individual approach to ESL. A close look at ESL teaching reveals that there are different interpretations of the word "situation". In the next section I clarify and analyze two approaches to the understanding of "situation", i.e. interpreting it as a topic and as a situation.

#### Topic and Situation

Despite the fact that the idea of a situated approach to ESL teaching and learning is not new, the analysis of Vygotsky's interpretation of "situation" within this thesis can contribute to a conventional understanding of this phenomenon. To illustrate the above I



would like to refer to a situated approach to ESL curriculum with which most teachers are familiar and which differs from Vygotsky's interpretation of "situation".

Very often, ESL teacher asks pupils to speak within such situations as *Christmas Holidays, Halloween, Weekend in the Country* ... In most circumstances children don't have much to say about such general issues. I recall being personally involved in discussing such situations when I went to school in Russia. This kind of situation is also familiar to me from my experience as a student at French courses I took in two Canadian cities - Ottawa and Montreal. Sometimes such situations (situations that are based on *general issues*) are called "topics".

It seems that the purpose of the topic is to make children express their opinions with regard to some *events or circumstances*. In this case, ESL teacher's role seems to be limited to naming a topic, introducing the necessary vocabulary and listening to what children can say on the given topic (language behavior approach). For those who support Vygotsky's understanding of "situation" as *communicative relations between/among people, based on and leading to the development of thinking*, there arises the following problem. If attitude is a necessary condition for the motivation of thinking/speaking, how can children have an attitude to the words *Halloween* (especially if this cultural theme is not within their cultural frame of reference)? Indeed, there can be a lot of different communicative situations within the topic *Halloween*, that can trigger different attitudes towards this event. For example, *disappointment* that there were too many people in the Halloween parade who obstructed the view; *joy* that there were a lot of people; *scary feelings*; *admiration* of Halloween costumes. The above examples remind us that

according to Vygotsky's understanding of communicative situation, a situation should be connected to children's personalities/emotional factors on which the formation of children's attitude depends. Thus, the purpose of the situation in a Vygotskian sense (as opposed to the topic) is to invite children to express their opinions on what they *feel and think* regarding something, not just report on events or circumstances. In other words, a Vygotskian notion of situation always has something to do with *people* (their feelings, attitudes, emotions and personal evaluative orientations towards the world), and not objects, as I analyzed in chapter three. Object-oriented topics reflect A.N. Leontiev's theory. Understanding situation as an event, or circumstances, or a place where these events/circumstances occur (i.e. as a topic), cannot provide for the development of children's attitudes, social investment for their thinking, and, finally - motivation and desire to speak a second language. Thus, Vygotskian theory allows us to differentiate between topic and communicative situation. Topic can be understood as an object-oriented general issue while Vygotskian situation is connected to the communicative relations between/among people, based on and leading to the development of thinking.

### **Problem within Situation**

The analysis of Vygotsky's theory leads to the logical conclusion that children can be motivated to get involved into language/thinking activity in a situation that has the elements of activity/thinking. Investigation of Vygotskian understanding of the situation (chapters three and four) reveals that these triggering thinking/speaking elements are problems and goals, that reflect the needs of children and relate to children's personalities, feelings, emotions. Thus, the situation in Vygotskian sense is characterized

as being connected to children's personalities and needs goal-directed problems that can be solved by means of communication. This implies that for Vygotsky, a problem within a communicative situation (like the communicative situation itself) should be based on personal relations between/among people. In Vygotsky's view, it is only the problem reflecting people's relations (emotions, feeling, desires, preferences and other elements of children's personal characteristics) that can motivate children to think in English, form their attitude to the issue under discussion and verbally express this attitude by speaking English. It means that problems connected to a situation and children's personalities, should be understood as *"conflicts" of ideas, opinions, feelings, etc., i.e. as "born" within the realm of individuals' relations necessity, need or drive to start thinking in a second language and verbally express thoughts, opinions, views.* This kind of communicative situation that creates the necessity/need to think/speak is known in Russian psychology as a problem situation [проблемная ситуация] (Petrovsky & Yaroshevsky, 1990, p. 293). For example, concerning Halloween, there could be the following situation stimulating children's language activity through settling the "conflict" of opinions and feelings: one child was disappointed that there were a lot of people - the other enjoyed it. It is *disappointment versus joy*, this conflict of feelings and opinions, that could be regarded as a communicative problem situation within Vygotsky's theory, not the topic Halloween per se. Connected to children's emotions and feelings, this kind of situation naturally motivates children to think/speak, in that, unlike the topic Halloween, it does not leave children indifferent but instead, invites their evaluative orientations. Indeed, only through experiencing certain feelings regarding Halloween,

children can have a motivation to form their own attitude to, and opinion about a situation under discussion, which in turn, can stimulate their thinking and speaking. Without this connection to children's experiences and "natural" drives, speaking English becomes for children not a need to express their thoughts, opinions, attitudes but a difficult obligation.

Thus, instead of asking pupils to describe Halloween, ESL teachers can invite children to ask more personal questions concerning Halloween on which they have opinions, based on their previous experiences. These stimulating discussion questions/comments could be: What do you think about Halloween? Do you think Halloween is an exciting and joyful holiday? Why do you think so? or Do you like the scary costumes people wear on Halloween? Did you wear a costume on Halloween? Why do (don't) you like the scary costumes? I personally think (don't think) it's a good idea. These sort of questions inevitably provoke diversity of children's opinions (or "conflicts" of opinions, feeling, attitudes, etc.), that can become the content of the situation within Vygotsky's theory. When children have their opinions/thoughts on a situation, they are motivated "from inside" or have a need to express what they think in a second language. In this case, the role of ESL teacher is to guide the natural flow of the discussion within children's zones of proximal development.

The above idea also reflects Hedegaard's theory on children's development under the guidance of the teacher. Following Vygotsky, Hedegaard writes that "motivation and interest in the content of teaching must be developed in children" through "contrasts, problems and conflicts" (Hedegaard, 1996, p. 185).

## Developing ESL Curriculum and Situation

The analysis of Vygotsky's theory leads to the conclusion that ESL teaching and learning should be based on situations, that are connected to children's personal characteristics (as opposed to assigned topics). Introducing English words and phrases separately from reflecting children's personal experience situations makes learning a second language meaningless for children. This leads to another problem: children easily forget new material and/or cannot use it appropriately in everyday life situations. The following example illustrates this idea.

To emphasize the importance of a situated approach to the school curricula, one of the most prominent authorities in Russian pedagogy Sukhomlinsky (1952) describes the following teaching practices. A teacher asked pupils to make sentences with verbs. Among the sentences the children made were: "Tractor ploughs the field" [**Трактор пахет поле**], "Rabbit eats the hay" [**Кролик ест сено**], etc. Sukhomlinsky writes in this regard that:

**В предложениях, которые придумали ученики, слышалось такое равнодушие, такая мертвая скука, что получалось: разве это живая речь? Разве это собственная мысль школьников?.. Если бы по ошибке ребенок сказал: ученик плывет, а пароход ест, комбайн ест, а кролик ест, - никто бы и не заметил...**

The sentences which the pupils made revealed such indifference, such complete lack of interest, that I couldn't help thinking: is it the language the children speak in real life? Does it reflect pupils' thoughts?... Nobody would have even noticed if, by mistake, a child had said: a pupil sails and a ship goes, a farmer eats and a rabbit drives... (Sukhomlinsky, 1952, p. 20).

This example illustrates the teaching practices that ignore a situated approach.

Despite the fact that the sentences the pupils made are grammatically correct, it is clear that the children would have difficulties in using them in real life situations. It accounts

for the fact that learning a language without using it in motivating thinking and reflecting children's experience situations, deprives it of any connected to real life sense.

The analysis of a situated approach to teaching ESL within Vygotsky's theory makes it possible to come up with the following recommendations for ESL teaching and learning:

Presentation of new ESL material should be based on authentic situations reflecting relations between people within an individual approach to teaching ESL. An important component of the situation should be a goal-directed problem, connected to children's personalities, needs and interests. In other words, it should be a problem that can stimulate children's thinking, develop their attitude to the issue under discussion and make it possible for the children to use English in real life situations.

### Innovative Approach to Teaching ESL

This approach is connected to the idea of "working at the edge of one's competence" (Engestrom, 1996, p. 167). This means that teachers' instruction should always be a little bit ahead of children's development and contain some unpredictable, new elements. Indeed, there are some advantages of spontaneously introducing new elements into teachers' instruction. It should stimulate children's *interests* along with their attention and thinking. According to many Russian scholars, the role of children's interest in teacher's instruction is very important for teaching and learning ESL as well as other school subjects. Thus, Bondarenko writes that "learning without interest, without developing positive personal attitude, doesn't make it possible for people to actively use their knowledge" [*знания, усвоенные без интереса, не окрашенные собственными*

**положительными отношениями, не становится активным достоинством человека»]**

(Bondarenko, 1974, p. 6).

The importance of interest for the school curricula is connected with the fact that it “is both a precondition and result of teaching” [**«является и предпосылкой обучения и его результатом»**] (Rubinstein, 1940, p. 528). On the one hand, children’s interest in teacher’s words is a means of optimizing the effectiveness of teacher’s instruction. On the other hand, effective instruction stimulates children’s interest.

Further developing the idea of “working at the edge of one’s competence” and dealing with the new, it seems necessary to define some limits and map out major guidelines for implementing this approach within teaching English as a second language. In connection to this, there arise the following questions: *What are the criteria for selecting new elements within ESL teaching practices?* and *How can new elements within ESL curriculum be interpreted within Vygotsky’s theory?*

A clue to the answer to the first question could be found in Petrovsky’s (1970) book on psychology where he describes mechanisms of memory. The issue of memory is important for an innovative approach in that the main purpose of teaching ESL (including ESL instruction containing new elements) is to prepare children to use this material in everyday life which is possible only if children are able to remember it. It implies that children’s ability to remember new knowledge in the future could serve as the main criterion for the selection of this material. According to Petrovsky, long-term memory depends on the following: “to what extent the given material is useful for the future activity of the subject and how important it is for reaching the subject’s goals [**«какова степень участия соответствующего материала в дальнейшей деятельности субъекта.**

КАКОВА ИХ ЗНАЧИМОСТЬ ДЛЯ ДОСТИЖЕНИЯ ПРЕДСТОЯЩИХ ЦЕЛЕЙ] (Petrovsky, 1970, p. 261).

Since people's future goals usually depend on their present and previous experiences, it seems logical to suggest that the issue of how useful a new knowledge can be for children in the future, is connected to children's present and past activities. The latter, in their turn, draw from children's personal/individual characteristics. Having mentioned that, there could be made the following conclusions concerning the criteria for selecting new challenging pupils' thinking elements of ESL instruction: new ESL knowledge can stimulate children's interest and thinking only if it is introduced within an individual approach to teaching ESL that takes into account children's past and present experiences. To reach this goal, it seems necessary for ESL teacher to constantly observe and study children's development within the concept of "between-type" development, that I analyzed in chapter four.

*How can new elements within ESL curriculum be interpreted within Vygotsky's theory?* In the light of Vygotsky's theory with its situated approach to teaching ESL (which is always based on the individual approach), there can be introduced new elements or changes within the situation, that can encourage children "to work at the edge" of their competence. Thus, within a communicative situation there can be changed the content, or the focus of the situation, i.e. (a) problem, (b) goal along with such "technical" characteristics as (c) number of team members, (d) composition of team members. These situational changes can result in enhancing children's strategies in learning English as a second language as long as the children are guided by the teacher



and their peers who can provide the necessary help within children's zones of proximal development.

## Summary and Conclusions

In this chapter I attempted to show how an East-West interpretation of Vygotskian Activity Theory could contribute to developing an ESL curriculum. On the basis of my analysis made in previous chapters I answered my last research question: *What could a comparative East-West analysis of Vygotskian Schools of Thought mean for the role of the teacher as a mediating agent in second language teaching and learning?* For this purpose, I examined how teaching ESL can be connected to the Activity Theory as it is interpreted by Russian and Western scholars. I also analyzed how teacher-pupil ESL communication might be understood within the arguments I had provided on Vygotskian Activity Theory. And finally, I identified and analyzed the main characteristics of teacher-pupil communicative relations within TESL which are based on the Activity Theory. They are an individual approach to teaching ESL, a situated approach to teaching ESL and an innovative approach to teaching ESL.

## Afterword

In this East-West comparative study I made one more step towards understanding what Vygotsky wanted to say by his research on language, consciousness, individuality and learning a second language. Some Western scholars may object that they don't see much evidence of any research referred to or made by Vygotsky. Nevertheless, all

Vygotsky's books are based on extensive research and scientific evidence. To understand this controversy it is important to know Russian reality at the time Vygotsky worked and lived. Russian psychological circles in the thirties were concentrated in Moscow. All the scholars involved knew each other and were familiar with the experiments of their colleagues. That is why, most of the time they (including Vygotsky) didn't provide any descriptions of the research in their books. It means that behind the words "according to Vygotsky" or "in Vygotsky's view" there is a body of evidence and a lot of research done. Ailing Vygotsky was saving his limited life time on describing to his colleagues what they already knew. It looks as if it was difficult for Vygotsky to imagine that long after his death he would have a lot of followers from other countries who would like to develop what he started. Let us hope that this talented scholar who risked his life for his ideas, is not misjudged by his Western followers.

Let us also hope that this thesis will encourage other students to look at Vygotsky's theory in connection to teaching and learning a second language. We shouldn't forget that the most famous Vygotsky's works *is* about language. Not language that is used for the sake of saying something, but language that is always connected to thinking, makes our life meaningful and helps us to have a conscious understanding of reality. Let us teach this kind of a second language, connected to children's personalities, ideas and opinions.

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