Language in Action
Language in Action
Vygotsky and Leontievian Legacy Today

Edited by

Riikka Alanen and Sari Pöyhönen

CAMBRIDGE SCHOLARS PUBLISHING
This volume is dedicated to the memory of

A. A. Leontiev (1936–2004)

and

Kari Sajavaara (1938–2006)
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Introduction</td>
<td><em>Riikka Alanen and Sari Pöyhönen</em></td>
<td>1</td>
</tr>
<tr>
<td>Chapter 1: Alexei Alexeevitch Leontiev’s Non-Classical Psycholinguistics</td>
<td><em>Dorothy Robbins</em></td>
<td>8</td>
</tr>
<tr>
<td>Chapter 2: Non-Classical Approach in Human Sciences and Transformations of Psychological Knowledge</td>
<td><em>Dmitry A. Leontiev</em></td>
<td>20</td>
</tr>
<tr>
<td>Chapter 3: Vygotsky-Luria-Leontiev’s School of Psycholinguistics: The Mechanisms of Language Production</td>
<td><em>Tatiana V. Akhutina</em></td>
<td>32</td>
</tr>
<tr>
<td>Chapter 4: Language as Problem and Problematic in the Cultural-Historical and Activity Theory Tradition</td>
<td><em>Peter E. Jones</em></td>
<td>57</td>
</tr>
<tr>
<td>Chapter 5: The Vygotsky and Bakhtin Circles: Explaining the Convergence</td>
<td><em>Craig Brandist</em></td>
<td>79</td>
</tr>
<tr>
<td>Chapter 6: Spinoza and Vygotsky in the Production of the Concept of Reading in the Acting as Citizens Project: Reading in Different Areas</td>
<td><em>Fernanda Coelho Liberais and Valdite Pereira Fuga</em></td>
<td>101</td>
</tr>
</tbody>
</table>
Chapter 7
What a Difference an Ideology Makes: An Alternative Pedagogical Orientation to Neoliberal Values in Education
Emily Duvall ................................................................. 124

Chapter 8
Identity and Heteroglossia: Negotiation of Identities of Ingrian Finnish Language Teachers in Russia
Sari Pöyhönen and Hannele Dufva ........................................ 160

Chapter 9
Metalinguistic Activity and Everyday Philosophy
Viatcheslav B. Kashkin .......................................................... 179

Chapter 10
Sociocultural Approaches to Second Language Learning: The Contribution of Cognitive Linguistic Approaches
Randal Holme ................................................................. 203

Chapter 11
Talking of Talk: How Exploration of the Object Can Illuminate Participants’ Understandings of Classroom Discourse
Ros Fisher ................................................................. 223

Chapter 12
Open-Endedness, the Instructional Conversation and the Activity System: How Might They Come Together?
Barbara Hawkins ................................................................. 245

Chapter 13
Semiotic Mediation in Literacy Practices: Private Speech in Context
Lynda D. Stone and Tabitha Hart ........................................ 280

Chapter 14
“It doesn’t matter what part you play, it just matters that you’re there.” Towards Shared Agency in Narrative Play Activity in School
Rikka Hofmann and Anna Pauliina Rainio .............................. 308
Chapter 15
The Role of Methodological Choices in Investigations Conducted in School Contexts: Critical Research on Collaboration in Continuing Teacher Education
Maria Cecilia Camargo Magalhães and Sueli Salles Fidalgo .............. 329

Chapter 16
Assessing Listening for Development
Rumia Ableeva ................................................................. 352

Chapter 17
A Cultural-Historical Activity Perspective: Collaborative Peer Review Exchanges Using Asynchronous Communications and Face-to-Face Interactions
Stella K. Hadjistassou ......................................................... 380

Chapter 18
How to Make Use of the ZPD in Foreign Language Education? The Case of Teaching Swedish Grammar to Finnish Learners
Olli-Pekka Salo ................................................................. 414

Chapter 19
Participation in Language Communities: The Case of Pre-Service Teacher Students
John Smeds ................................................................. 432

List of Contributors .......................................................... 453

Index ............................................................................. 460
In winter 2004, professor Dorothy Robbins from the University of Central Missouri, U.S.A., approached Kari Sajavaara, professor emeritus and former director of the Centre for Applied Language Studies of the University of Jyväskylä, Finland, with the idea of organizing an international conference in honor of A. A. Leontiev, a Russian psycholinguist. Dorothy had met Kari in 1996 when the XI World Congress of the International Association of Applied Linguistics (AILA ’96) was held in Jyväskylä. She was aware that A. A. Leontiev had visited Jyväskylä before and that Kari had met him on a number of occasions and held him in great respect.

Kari in turn approached us as part of “the younger generation” of researchers and scholars at the CALS, as he put it, and because the nature of our own research involved issues central to the work of not only A. A. Leontiev but also L. S. Vygotsky and A. N. Leontiev. We decided to focus on some of the most fundamental concepts in Russian and Western developmental psychology and psycholinguistics: the nature of action and activity and the role of language in their enactment. The title of the conference reflects the main theme of the conference: *Language in Action—Vygotsky and Leontievian Legacy Today*.

The members of the organizing committee included a number of researchers from the CALS, including Riikka Alanen as the chair and Sari Pöyhönen as the secretary of the committee. Dorothy Robbins served as our honorary chair. The preparations for the conference were well on the way when sad news reached us from Moscow: A. A. Leontiev had passed away on August 12, 2004. For a moment, the fate of the conference hung in balance, but in the end, we decided to go ahead. The conference was held in June 8-10, 2006 in connection with the Summer School of Applied Language Studies, the annual conference started by Kari Sajavaara in the 1970s at the University of Jyväskylä. The plenary speakers included Tatiana V. Akhutina, Yrjö Engeström, Dmitry A. Leontiev, Dorothy Robbins, and Anna Stetsenko. Aida S. Markosyan and Anna A. Leontieva, the widow and daughter of A. A. Leontiev gave a moving, personal tribute to a husband and father. It was the original intention that Kari Sajavaara should give the opening address, but he had to withdraw because of a sudden illness, at which point Dorothy came to the rescue and opened the
conference on his behalf. Only later did we realize how serious Kari’s illness would turn out to be.

We would like to thank our honorary chair Dorothy Robbins, whose role was so much more significant than “honorary”. We are also deeply grateful to the members of the Leontiev family, who gave so much of their time and energy to the success of the conference. Similar thanks go to the keynote speakers Tatiana V. Akhutina, Yrjö Engeström, Anna Stetsenko, and the participants in the Roundtable discussion on the unit of analysis in action and activity, who in addition to Anna Stetsenko included James Lantolf and Gordon Wells. Above all, we thank all conference participants and contributors to this volume, who met our deadlines and responded to our requests—sometimes on a very short notice. We also thank the Academy of Finland for the funding of the conference. Finally, we would also like to acknowledge the efforts of Teija Kyllönen, who helped us to prepare the manuscript, and Amanda Millar at Cambridge Scholars Publishing, who patiently answered our questions.

We would like to believe that the atmosphere at the conference supported a free exchange of ideas, and when the conference was over, we as organizers felt that all our guests left quite satisfied or at least reasonably content. We were left with fond memories of intellectually formidable speakers and scintillating personalities. This volume is in many ways the truest tribute we are able to give to all those who participated. It is to our great grief that Kari Sajavaara is not here to see this volume. After a brief illness, he passed away on October 24, 2006. This volume is dedicated to his memory and the memory of A. A. Leontiev.

In Jyväskylä, July 30, 2007
Riikka Alanen and Sari Pöyhönen
INTRODUCTION
RIIKKA ALANEN AND SARI PÖYHÖNEN

The Russian psychologist L.S. Vygotsky (1896–1934) has been one of the central figures in the recent shift from the cognitive to the social and the cultural in educational and psychological research in the West. A.N. Leontiev’s (1903–1979) activity theory has had a similar impact. The ideas of both these scholars and scientist have also started to influence the field of applied language studies, more specifically, second/foreign language learning research in the English-speaking world as well as elsewhere (e.g. Block 2003, Lantolf 2000, Lantolf and Thorne 2006). In addition, A. A. Leontiev’s (1936–2004) psycholinguistic theories have started to attract increasing attention (see e.g. Robbins 2003; chapter 1 in this volume). One of the most significant recent influences on the studies of language in society today has been the Leontievian activity theory in its Western, neo-Vygotskian form, with important insights from Bakhtinian dialogical notion of language and speaking (see R. Engeström 1995; Y. Engeström 1987, 1999; Wells 1999, 2002; Wertsch 1991, 1998)—with some equally important caveats (see e.g. chapter 5 by Brandist in this volume). However, there is no one widely accepted, monolithic Vygotskian or Leontievian theory. The role and nature of language in action and activity remain open for debate.

In June 2006, the conference Language in Action—Vygotsky and Leontievian Legacy Today was organized at the University of Jyväskylä in Finland. This edited volume presents 19 chapters based on papers presented at the conference. It is intended to bring together different views from a number of disciplines for a critical analysis and reappraisal of the relationship between language and action. The topics range from theoretical and methodological issues related to sociocultural and activity theoretical views of language to empirical research reports on classroom interaction, identity, language assessment, teacher education and second and foreign language development. The overall aim of the book is to shed light on the nature of human action and activity and the role that language has in mediating and shaping what we think, do, and learn. It is our sincere hope that the book will become a showcase of different socially oriented
Introduction

Action and activity are by no means clear-cut as scientific constructs. The role that language has in the actualization of action and activity is not self-evident either. Yet, if we are to accept the premises of the sociocultural and activity theoretical approaches of today—in A.A. Leontiev’s terms, non-classical approaches—we have to have a conceptualization of language that is compatible with the systemic, dynamic, and holistic conceptualization of human activity that these approaches embody today (see e.g. chapters by Robbins, Leontiev, Jones and Holme). Whether we talk about language, language use or language learning or development, we have to be able to see language as something different from the more mainstream, classical traditions of linguistics and applied linguistics.

The first three chapters of this volume shed light on the Russian perspective on language in action and activity. To examine the legacy of Vygotsky and the Leontievs, Dorothy Robbins (chapter 1) outlines the principles of A.A. Leontiev’s approach to speech activity and relates it to the notion of activity as it appears in the work of his father and the conceptualization of language as it appears in Vygotsky’s theories of the development of higher mental functions. Notably, she also presents a brief outline of A.A. Leontiev’s approach to non-classical psycholinguistics. In A.A. Leontiev’s work, language emerges as a dynamic and systemic process.

Non-classical psychology as part of an emergence of non-classical approaches to natural science in general is further discussed by Dmitry A. Leontiev (chapter 2). As D. A. Leontiev points out, the term non-classical psychology was first used by Russian psychologist D. B. Elkonin (1904–1984). In his chapter, Dmitry A. Leontiev describes some of the theoretical and methodological implications that adopting such an approach to the study of mind, culture, and activity might entail.

In chapter 3, Tatiana V. Akhutina reviews the main theoretical and methodological issues connected to the notions of language, action and activity in the works of Russian psychologist and psycholinguists L.S. Vygotsky, A.R. Luria, A.N. and A. A. Leontiev. At the same time, Akhutina shows how the material and the semiotic are intertwined in speech activity by looking at empirical data from people suffering from aphasia.

Vygotsky and the Leontievs, father and son, were not the first and only thinkers to realize the significance of the social to the development of the mental, nor the central role of action and activity (see e.g. Valsiner and
van der Veer 2000). John Dewey (1859–1952), the great American psychologist, philosopher and educational reformer, was one such figure; in chapter 7, Emily Duvall presents a synthesis of Deweyan and Vygotskian notions of action and activity. By combining these views with the insights gained from the work of German philosopher Hans-Georg Gadamer (1900–2002), she demonstrates what teaching as a democratic-hermeneutic activity might look like in practice.

In chapter 6, Fernanda Coelho Liberali and Valdite Pereira Fuga go back to the roots of Vygotskian thinking: apart from Marxist philosophy, Vygotsky was influenced by the philosophy of Baruch Spinoza (1632–1677) (see e.g. Robbins 2003). Liberali and Fuga discuss the interconnections of Spinoza’s philosophy and Vygotskian thinking, and their application in practice in the design, organization and running continuing teacher education programs in the environs of São Paulo in Brazil.

Most researchers and scholars working within a sociocultural or activity theoretical paradigm today view language as one of the most important mediating artifacts. Most human activity is always mediated, in other words, whoever is doing the acting does it with the help of an artifact, whether psychological or physical, symbolic or material. Just exactly what these artifacts are like has been perhaps most notably discussed in the West by Michael Cole. According to Cole (1996), all artifacts, including language, are, at the same time, both semiotic and material. In fact, language, or speech, cannot truly be regarded as purely social, cultural, historical, psychological or material but it is all of them at the same time.

Following the theme of the conference, the majority of the chapters in this volume explore the role and nature of language and its relationship to action and activity. To start it off, Peter E. Jones (chapter 4) calls attention to what is in his view the failure on the part of Cultural-Historical Activity Theory to problematize language. Drawing on Roy Harris’s integrationist conceptualization of language, Jones argues that in most theories of language and development in the West, language is approached as a fixed code, a theme echoed in Randal Holme’s chapter. He ends by calling for a re-examination of Vygotsky’s notion of word meaning and its relation to Voloshinov’s and Harris’s ideas of language (cf. Pöyhönen and Dufva’s chapter in this volume).

In fact, a great number of scholars in the West—most notably James Wertsch but also Ritva and Yrjö Engeström and Gordon Wells—have drawn on some of the ideas of the Russian philosophers M.M. Bakhtin and V.V. Voloshinov to explicate the role of language in mediated
action/activity. These scholars were both contemporaries of Vygotsky, Luria and A.N. Leontiev but it is not entirely clear to what extent they were aware of each other’s writings. It is not quite clear, either, to what extent these thinkers’ ideas are mutually compatible. In chapter 5, Craig Brandist discusses the implications of some of the recent findings from that time period. Although the scholars in the Vygotsky and Bakhtin Circles drew on similar contemporary sources, the conclusions they reached were to some extent quite different. In Brandist’s view, these two thinkers stand in a number of respects at the opposite ends of the philosophical continuum, with Voloshinov occupying the middle ground.

The legacy of Bakhtin and Voloshinov is evident in the research reported in some of the chapters (see e.g. chapter 15 by Magalhães and Fidalgo). In chapter 8, Sari Pöyhönen and Hannele Dufva discuss the notions of language and identity by using Bakhtinian notions of dialogue, voice and heteroglossia in the light of empirical data from an ethnographic research project on the language identity of the Ingrian teachers of Finnish as a foreign language in Russia. The notion of language itself as a monolithic and monologic concept is called into question by Pöyhönen and Dufva (see also Jones’s chapter in this volume).

In their attempts to conceptualize what language is and how it can be related to action and activity, other scholars have gone to other sources. In chapter 9, Viatcheslav B. Kashkin outlines the notion of metalinguistic activity. Drawing on the philosophy of Humberto Maturana and the semiotic theories of Roland Barthes, he explores language users’ beliefs about language as language mythology or as everyday philosophy.

In chapter 10, Randal Holme discusses the role and nature of language from the perspectives of cognitive and systemic functional linguistics. He argues that the latter approach’s emphasis on the social, if taken to the extreme, may lead to the perception that language and cognition are simply social products: with the focus on the social, there is a danger that the creative and transformational potential of language and cognition in human activity and development could be overlooked. Holme ends by outlining what a cognitive, experientalist approach to language and second language development could entail in practice.

Most speakers at the conference presented results of empirical studies showing how language relates to action and activity in various contexts. Many of these papers focused on the use of language in school context, in the classroom. School context has traditionally been one of the most important areas of socioculturally and activity theoretically oriented research. In many ways, the school can be considered the ultimate context
in which transformation of the social and the cultural into the cognitive and the psychological takes place and vice versa.

A number of papers reported research on learning in school context. Such learning activity can be approached from various perspectives. In chapter 11, Ros Fisher sheds light on how the participants themselves view activity in the classroom, an aspect that has been rarely studied. Her study shows how the teacher and pupils have their own, differing, expectations as to what constitutes the object of talk in the classroom. Understanding what these objects are may help us gain a better understanding of classroom practice. Like Fisher, Barbara Hawkins (chapter 12) adopts an activity theoretical perspective to the study of classroom ESL learning. Using Gordon Wells’s 2002 model as a basis for her study, she shows how classroom learning involves a particular kind of dynamic interaction between the teacher and students in the zone of proximal development. By looking at how instructional conversation works in the classroom, she then applies her findings to Well’s 2002 model of the activity system to gain a new understanding of how expertise is shared in the classroom discourse.

In chapter 13, Lynda D. Stone and Tabitha Hart focus on children’s private speech in a first-grade classroom. It is their contention that the study of private speech cannot be separated form the context in which it occurs: what children say to themselves during various activities in the classroom is ultimately connected to the academic practices of literacy learning of that same classroom. Riikka Hofmann and Anna Pauliina Rainio (chapter 14) explore the notion of shared agency in school learning by analysing interaction during play activity in a primary school classroom. They show how agency is constantly under negotiation in the classroom and how the participants’ access to agency is always fraught with the tension between the individual and the collective. In chapter 15, Maria Cecília Camargo Magalhães and Sueli Salles Fidalgo explore language use in a slightly different context: instead of children, their research involves adults. Drawing on Wertsch and the Bakhtinian notions of authoritative and internally persuasive discourse, they show how language can be used as an analytic focus in the study of teacher-student interaction in continuing teacher education programs.

A major theme at the conference was second or foreign language development. A kind of sea change is currently taking place in second language learning research. A more traditional view the second or foreign language learner as somehow deficient, lacking in some cognitive quality when compared to the first language speaker, is being challenged by a different understanding. Second language development is an on-going
social, cognitive and affective process, in which language users/learners are viewed as agents in charge of their own learning.

How second or foreign language learning might actually take place in different contexts is explored in a number of chapters in this book. In Barbara Hawkins’s chapter, the interaction in an ESL classroom is followed step by step to reveal the dynamics by which the teacher supports her students’ understanding and learning. In chapter 16, Rumia Ableeva explores the notion of dynamic assessment. After first reviewing the history of the concept, she shows how the teacher in a university French L2 classroom successfully uses dynamic assessment to evaluate and improve listening abilities of her students, a result she considered not achievable by static assessment.

In chapter 17, Stella K. Hadjistassou focuses on the feedback that the ESL students receive from their peers during computer-mediated communication and face-to-face interaction. She shows how the students participating in the peer-guided interactions make use of the various forms of feedback they receive from other students during learning activity. Olli-Pekka Salo (chapter 18) explores the notion of the zone of proximal development in foreign language learning in school from the perspective of Pienemann’s Processability Theory, on the one hand, and the limitations set by the foreign language curriculum, on the other hand. He ends by raising the central question whether the school as an institution is capable of creating and supporting the ZPD foreign language learning.

The potential clash between learning activities that take place inside and outside the school as an institution highlights the importance of the context of activity for learning. In the final chapter, John Smeds examines language teacher students’ conceptualization of their own language learning by using Anna Sfard’s acquisition and participation metaphors in the analysis of language learner biographies. It appears that many of the future language teachers describe their language learning as taking place through participation in language activities outside the formal language learning context although they come to emphasize acquisition later in their professional life. Thus, the student narratives reveal the inevitable conflict between what Smeds calls monolingual school practices and teacher identity and multilingual language learner identity.

The main goal of this volume is to examine the nature of language and its relationship to human action and activity from a multidisciplinary perspective. We hope that readers from various disciplines, not only applied language studies, but also humanities, education and psychology in general, will enjoy the chapters in this book and, perhaps, find connections in them to their own research or educational practice. Above
all, we hope that this volume demonstrates the potential of sociocultural and activity theoretical approaches for the study of human activity, development, and learning. It is our belief that the theoretical and methodological concepts developed within these approaches are capable of offering a platform for understanding the most basic material as well as social and cultural processes that we use when we learn to make sense of the world as human beings.

Bibliography


CHAPTER ONE

ALEXEI ALEXEEVITCH LEONTIEV’S
NON-CLASSICAL PSYCHOLINGUISTICS

DOROTHY ROBBINS

1. Introduction to the Life of A. A. Leontiev

Alexei Alexeevitch Leontiev was born on January 14, 1936. His father was A. N. Leontiev, who worked with Vygotsky, and who was the head of the Department of Psychology, Moscow State University (MSU) from 1966 to 1979. As a child, Alexei Alexeevitch studied German, and later translated poems from German into Russian. He finished school in 1953, winning the coveted “Gold Medal”. He wanted to study many subjects at university, such as history, organic chemistry, languages, and psychology. He entered the philological department of “Romance and German Languages”, finishing in 1958. At this point in time, he started working at the Institute of Foreign Languages AN SSSR. In 1963, he successfully defended his first dissertation. In 1968, he completed his “Habilitation” (second doctorate needed to be a professor) in psychology. In 1967, Alexei Alexeevitch started giving lectures on psycholinguistics for psychologists at Moscow State University. Alexei Alexeevitch worked at the Department of Foreign Languages at the V. I. Lenin Moscow State Pedagogical Institute, starting in 1968. In 1969, a group was formed to work on problems of psycholinguistics and theories of communication at the Institute AN SSSR. During this time, Alexei Alexeevitch was on the staff at MSU at the Scientific Methodological Center for Russian as a Foreign Language. In 1990, he served as an “expert advisor for foreign languages” with the Russian Ministry of Education; and, in 1992, he became a member of the Russian Academy of Education. In 1994, he served as the President of the L. N. Tolstoy Institute of Foreign Languages and Cultures. In 1997, Alexei Alexeevitch received the honor of being a member of the Academia of Pedagogical and Social Sciences. As well, he was active in supporting curriculum changes in Russia, and from 1997 on he served as the scientific head of the inter-regional society called “School 2000”, which has been extended to “School 2010”. Over 4000 schools
around the Russian Federation are reached by this program. In 1998, Alexei Alexeevitch became a professor of psychology at the Department of Psychology, Moscow State University. Altogether he published over 900 articles and 30 books. He died on August 12, 2004.

2. Non-Classical Psychology

Vygotsky’s method is usually labeled “cultural-historical theory,” while A. N. Leontiev (A. A. Leontiev’s father) is known for his school of “activity theory”. Although it is argued that there is indeed one school of thought within Russian-Vygotskian psychology, the branches of this school are very different from each other. Some Western attempts to fuse these two areas together into CHAT (Cultural-Historical Activity Theory), without a clear differentiation of the similarities and differences of the two theories, is viewed by this author as a misguided attempt. A. A. Leontiev was loyal to both his father’s activity theory, and he returned to Vygotsky’s theories of language as the prime motivator of continual development of the higher mental functions.

There is a call to establish a differentiated fusion of Vygotskian/Leontievian theories, inter alia, called non-classical psychology. However, the main focus of this approach is to return to the theories of L. S. Vygotsky in anchoring future research.

Daniel Elkonin (1989) stated that Vygotsky was the founder of non-classical psychology, with the following definition: non-classical psychology is “the science of the way the subjective world of a single person emerges from the objective world of art, the world of production tools, the world of the entire industry” (p. 478). Non-classical psychology does not stand in opposition to classical psychology, but transforms it. According to A. A. Leontiev, non-classical psychology relates to the deeds of a free, creative personality, the infinitely evolving human being in an endlessly changing world. Non-classical psychology has the image of constant, fluid movement, change, and development with the image of flow and zone(s).

One of the starting points within non-classical theories of language is image (of course, “needs” and “motives/motivation” are the actual starting points), always related to the development of “personality”. In many ways the problem of behavior is thus the inverse of the problem of image. Where an image is a representation within the organism of its environment, a behavioral act is a representation in the environment of something within the organism (cf. A. A. Leontiev). The ready answer to the question of how movement becomes transformed into action is that a
form of the imaging process must initially occur in the motor cortex, and
that image is a momentary Image-of-Achievement (or sometimes, a lack
thereof), which contains all input and outcome information necessary to
the next step of that achievement. This Image-of-Achievement encodes
environmental forces, not patterns of muscle contraction. The Image-of-
Achievement regulates behavior much as do the settings on a thermostat:
the pattern of the turning on and off of the furnace is not encoded on the
dial, but represents the set-points to be achieved. (cf. Pribram 1971,
speaking about the theories of N. Bernstein).

The second important aspect within a newer understanding of non-
classical psychology is the relationship between the whole and the parts.
One of the key elements of non-classical psychology is the word
“relationship”, which automatically takes us from a static to a dynamic
worldview. Within this understanding it is not possible to reduce
research/analysis to a view of isolated, separated elements. It is necessary
to understand the dynamic movement of dialectics, within an equally
dynamic whole, sometimes labeled Spinozian monism. This latter
understanding can only be comprehended through the use of metaphors, or
non-spatial thinking, something Vygotsky understood very well.

“Consciousness is regarded as something non-spatial in comparison to the
mental functions...Each interfunctional change must be explained by a
change of consciousness as a whole” (Vygotsky 1997, 129–130). It should
be understood that various dynamic “hierarchies” are in place; however, in
a different sense than is normally understood. For example, A. Koestler
(discussed in K. Wilber 1982) coined the term HOLON (whole + parts).
All hierarchies are composed of holons, wholes that are simultaneously
parts of other wholes. The term Hierarchy should be understood as
Holarchy = wholeness, unity, functional integration. For example, A.
Asmolov (1977) has stated something to the fact that every act of human
activity has its own motivational determinants, with a hierarchy of sets
governing it. The word holarchy translates for this author as a moveable,
flexible unity.

Non-classical psychology primarily focuses on the development of a
“self-determined”, “self-regulated” personality, which is individual,
cultural, and social. The focus on personality does not refer to the sum
total of relationships of a single individual, but is actually a construct
transcending the biological and the social. There is a feeling of shared
development between the cultural/social, outside world, as well as
relations to other individuals and artifacts, and intra-mental/
developmental growth, all of which is connected through synthesis. One
basic goal of non-classical psychology is to “bridge the gap between the
objective and subjective, between the realm of mind and the realm of culture, between the person and the world” (D. Leontiev 2005, 26).

In closing this short introduction on non-classical psychology, the following can be stated: (1) There is a focus on viewing the similarities among sets of problems, rather than viewing problems which are isolated; (2) Instead of exclusively focusing on the dichotomies of external/internal, there is a new focus on content/process, which incorporates the intent of A. N. Leontiev; (3) Language, signs, sense, image, units/levels, etc., are viewed within a functional system of process, flow, change, situated in culture and history (which are always viewed in movement and change); (4) In short, non-classical psychology views the potential of the individual and the social, within a new zone of fusion; and (5) The key element in non-classical psychology is the development of a personality. A. N. Leontiev (1978) defined personality as “…the study of what, why, and how a person can use what is inborn in him/her and what is acquired.”

3. Alexei Alexeevitch Leontiev’s Non-Classical Psycholinguistics

One of the defining characteristics of non-classical psychology is that learning is not focused on the acquisition of rules only, but rather on the development of procedures/techniques ultimately forming a methodology. Leontiev’s method attempts to understand the holarchy of a system, a program, and a methodology. Another overall point of understanding is Leontiev’s return to the field of semiotics, mostly connected with real-life and developmental-learning situations. He did not restrict his psycholinguistics to dissecting/analyzing linguistic structures out of context, and he was interested in many different areas of life, including poetry, aesthetics, cultural comparisons, travel, learning/teaching foreign languages, advertising, etc. It should also be remembered that in Russia, psycholinguistics is placed within the field of psychology [which includes semiotics], uniting various disciplines that are separated in the West, such as sociolinguistics, applied linguistics, etc. What is important to remember is that Leontiev focused on sign systems, instead of just signs, both of which are placed within a framework of dynamic processes.

4. Signs – Sign Systems

It is precisely the relationships within the sign systems, and between the signs and other levels, that were of interest to him. And, many of his ideas
have double or triple levels, such as language system and “norm”. For example, a language system is “…a system of language invariants or an aggregate of language phenomena that serves in defining a specific function in language (usually the function of distinguishing, and can take the form of a network of oppositions (structures)...A ‘norm’ in language is an aggregate of the language phenomena that does not carry an immediate distinguishing function in language, taking the form of common and generally accepted (traditional) realizations [thoughts taken from E. Coseriu]” (cf. A. A. Leontiev 2006b, 94). So, we come to very new conclusions, different than in the West: There is no such thing as a static sign, but only sign systems, sign functions, etc., and these systems are alive, social, political, etc. At the same time, we must be able to analyze signs. Vygotsky (1997) stated: “Naturally, the very meaning of analysis must be radically changed. Its principal task is not to break down the psychological whole into parts or even into pieces, but to isolate certain traits and instances in each psychological whole that have retained the preeminent importance of the whole” (p. 67). Therefore, when a sign is viewed dialectically, it cannot be reduced to a single element. A “sign system” or “system of signs” is the way we designate a special type of dependence on the functioning and development of signs—specifically an interdependence of signs that are analogous in terms of their place and function in activity.

In returning to an understanding of “signs”, there are different sign types for A. A. Leontiev: (a) The sign as a “thing,” something material. As it applies to language, it is a material linguistic “body” incorporated into the activity of a person; (b) Sign is also understood as an equivalent of the real sign in everyday consciousness. This is called sign image. A. A. Leontiev felt that most linguists work within this understanding of sign image; (c) As well, there is a sign model, understood as a product of the scientific conceptualization of the structure and function of the objective. This includes both semantic and phasic (bodily) components. (d) There are also virtual and real signs. A virtual sign refers to certain features of activity divorced from specific sign operations, which are attributed to the corresponding material object that is fixed in a sign form. This understanding includes activities objectified in a sign. A real sign is an element of a specific sign operation; (e) A sign is not a thing, but a process, an interweaving of relations in which social relations are always included even when we are dealing with natural signs, as it is only in a social context that something can exist as a sign (cf. Ponzio 1990). A real sign can only be understood as an element of a specific sign operation, where signs are always polyfunctional; and, signs are only achieved
through action (cf. Pribram 1971). As well, there is “no cultural sign, once taken in and given meaning, [that] remains in isolation; it becomes a part of the unity of the verbally constituted consciousness” (Voloshinov 1973, 15).

Within a sign system there is also sign activity, which occurs accordingly and unevenly. Regarding changes within the process of development of sign activity, A. A. Leontiev (2006b) states that A. A. Potebnia was correct with his metaphorical comparison: “with footprints in the sand—they can be followed, but that does not mean that they contain the foot itself; and the word does not contain the meaning itself, just a footprint of the meaning” (p. 93).

5. Speech Program

The next level of language theory in the new non-classical holarchy is that of a program. In beginning a new understanding of a speech program, A. A. Leontiev agreed with N. I. Zhinkin (1972) in hypothesizing that speech programs generally do not use a code of words (or other speech elements), but a code of images and schemata, or an objective-representative code. Also, the content of the speech program (or what the speaker encodes) cannot be reduced to “meaning” only [often defined differently by various authors]. There are multiple levels of meaning, such as referential/categorical meaning, personal meaning, etc. And, it is important to know that meaning is not always objective, and sense is not always subjective. Within the field of semiotics, meaning can be understood as denotation (or being culturally engendered), code, and it is syntagmatic; while, sense can be understood as connotation, which is traditionally viewed as being more subjective in the field of “becoming”, and must include emotions. This explanation is extremely superficial, and a caveat should be given regarding this interpretation. The concept of “personal meaning” will not be introduced here.

Although it is impossible to fully describe a speech program within this chapter, the final stage of language production is the mastery of functional grammar, inter alia, which represents a transition from the level of speech acts to the level of speech operations (with a slightly different nuance than A. N. Leontiev’s use of the term), which helps to clarify the problem of carrying out the speech act. The framework for this understanding is sometimes called speech (act) activity (Sprechätigkeit), with social factors penetrating and influencing speech activity. It is the creativity of becoming that is stressed, placing a new emphasis on certain aspects of growth, history as change, and development.
Together this approach represents a new type of thinking, and it represents a metaphor of new thinking that might be understood with the following image: Without truly changing our entire focus of psycholinguistic thinking and analyzing, we are sometimes in a regressive process of only using nouns to describe gerunds, instead of using the gerunds themselves. A. A. Leontiev invites us to change our static psycholinguistic views, to replace them with a new, dynamic understanding of a cohesive, dialectical, and changing unity within activity.

The flexibility of A. A. Leontiev’s approach connects system-program-methodology, which underlies all levels of his language theories. The understanding of his model is always connected to the process of inner speech, inner programming, and speech production. Therefore, we have *Language—Speech (act) Activity—Speech*. As well, A. A. Leontiev does not refer to a *speech act* alone, but refers to *thinking-speech-act*.

Speech acts, operations, and utterances are not viewed as isolated entities, but function within an *Umfeld*, an environment. Some of the influences on their development are: (a) Dominant motivation; (b) Environmental afferentiation (a term used by A. N. Leontiev), which could mean *reflexivity* in today’s terms; (c) Image-of-the-Result (K. Pribram, *inter alia*), or Image-of-Achievement (cf. N. Berntshen, which is sometimes called probability forecasting); (d) The role of *image* is understood within an *image system*, which is dynamic, placed within a *zone of movement, change, and development* (which is sometimes regressive). A better English term for speech acts would be *speech-ing acts*, with characteristic features of activity that are independent of the conditions of the act, and are determined exclusively by the structure of the activity as a whole. Any motivated *speech-ing act* will include the formulation and implementation of a program/plan + a comparison of the results of the program. Within the *speech-ing act* there is the substantive aspect, determined by the goal of the act, and the operational aspect, determined by the conditions of the act. The substantive aspect of a *speech-ing act* (or any other act), is what is programmed. This program includes the aspects of the act that control its implementation, but which are independent of the actual implementation (cf. A. A. Leontiev 2006b).

Two other functions need to be mentioned in this context: (1) Speech operations have characteristic features of activity that are determined by the conditions of the act, and are not dependent on the structure of the activity; (2) Speech utterances are physiological, psychological, and linguistic, with a long list of examples. Utterances are placed within a system/program; for example, planning speech, *speech-ing act*, and
analytic speech, all of which are related to the third level of the tripartite model, which represents a methodology. Again, the model looks like this: system – program – methodology.

Alexei Alexeevitch analyzed many physiological levels of the organization of speech, such as communicative speech, nominative speech, echolalic speech (repetitive speech), stochastic speech (probability predictions, memorizing sets of material), “constructive” speech, etc. The main goal of these descriptions was to discover the primacy of these types of examples within a teaching methodology. Which types of speech organization can lead to “active” speech, and which types might lead to “reactive” speech? Also, with his understanding of a “program” he went beyond most applied linguistic structures by including areas such as “habit” [from below, “continuous realignment”], “imitation” [from above, “automatization/reduction”], and “skills”, offered as examples.

Before leaving the area of “program”, three more aspects need to be discussed: (a) inner speech, inner articulation/pre-speech [vnutrennee progovarivanie]; inner programming; (b) memory; (c) units of analysis.

6. Inner Speech

Inner speech is a speech action moved inside, produced in a compact form. Inner speech is most often accompanied by inner articulation in cases where it is closest to conversational, discursive speech. It is normally understood as a problem-solving mechanism. A. R. Luria, for example, understood inner speech as having a vital role in recoding subjective elements into a syntagmatic scheme (cf. Vocate 1987). Inner speech, which is preeminently the word, is actually an inner sign (cf. Voloshinov 1973). Consequently, it is not the word which is the expression of an inner self, but the inner self which is a word expressed or driven inward. Voloshinov (1973) has offered interesting thoughts on inner speech:

Closer analysis should show that the units of which inner speech constituted are certain whole entities somewhat resembling a passage of monologic speech or a whole utterance. Most of all they resemble the alternating lines of a dialogue. These whole entities of inner speech are not resolvable into grammatical elements. These units of inner speech, these total impressions of utterances, are joined with one another and alternate with one another not according to the laws of grammar or logic, but according to the laws of evaluative (emotive) correspondence, dialogical deployment, etc., in close dependence on the historical conditions of the social situation and the and the whole pragmatic run of life. (Voloshinov 1973, 38)
Damasio (1994) stated that “most of the words we use in our inner speech, before speaking or writing a sentence, exist in auditory or visual images in our consciousness. If they did not become images however fleetingly, they would not be anything we could know” (p. 106).

7. Inner Articulation / Pre-Speech
The inner articulation/pre-speech plane stands closer to external speech than inner programming; yet, on the other hand, it is not external speech, because it is for a person only. This stage occurs when a person tries to solve a problem.

8. Inner Programming
According to A. A. Leontiev (2006b), “inner programming is the uncognized construction of a certain scheme on the basis of which a speech utterance will be generated in future” (p. 46). It can unfold in external speech (bypassing inner speech), and it can unfold in inner speech. Therefore, inner programming can have various types, such as the programming of a concrete statement, or programming of a verbal whole. It represents an inner structure of speech production, and it is at the stage of inner programming that Zhinkin’s “code” becomes meaningful. Inner programming is the “tool that fulfills thought, the connecting link between the intention that gives rise to thought and the elaboration of the thought in an objective linguistic code” (Leontiev and Ryabova [Akhutina] 2003, 36). Also, “A. A. Leontiev observes that the [inner] program fixes the content of an entire verbal whole as well as of individual utterances” (Akhutina 2003, 68).

9. Memory
A. A. Leontiev analyzed research on memory regarding psycholinguistics, viewing aspects such as situational memory, memory of necessity, program memory, content memory, form memory, native-language memory, operational memory, etc. Although we will not discuss memory here it is interesting to note that, according to A. A. Leontiev, when there is a delay in the storage of utterances, it is not the utterance that is stored, but its program.
10. Units of Analysis

It is interesting to note that A. N. Leontiev did not put quotation marks around the word “unit”, with activity being a holistic, non-additive unit. He also offered no definition of “unit” (cf. A. A. Leontiev 2006a). As L. K. Naumenko (1968) claimed, “units of analysis” do not have their own existence, independent of the object of study; a descriptive system cannot be opposed to the system of an object. “Units of analysis” must be understood within a holistic flow model of change. As well, there are many hierarchies of motives, units of analysis, activity, sense, meaning, etc. N. Bernshtein spoke of “levels”, and this understanding of hierarchy must be reevaluated in light of current theories today, such as sociocultural theory, cognitivism, and postmodernism (which often represent a “fladbed wholism” [without hierarchies] for K. Wilber 1982). Traditionally, we tend to think of a single construct when we speak of “motive”, “goal”, “ZPD”, “units of analysis”, etc., instead of understanding asymmetrical layers that intersect. Within non-classical psychology, a new comprehension of “units” needs to be developed. Vygotsky (1997) stated that “the trend toward studying processes as wholes, toward disclosing structures that are the basis of psychological phenomena is the opposite of the old analysis” (p. 66).

11. Methodology: Example of Teaching/Learning Foreign Languages

For A. A. Leontiev, methodology fits within a program and a program fits within a system, with system being the starting point. The main function of programmed learning is to help orient the student to the subject of instructions. It is not a construct of algorithms, not a method, but rather a technique. Theories of language learning include the independent problem of constructing a model of a functional grammar, that is, a model of the generation of verbal utterances based on a rule for moving the form of a given content to the various possible forms of its expression in a particular language. There is a focus on the inter-relationships between conscious operations used with the language, and the transfer of existing speech skills and habits. The speech act viewed within traditional teaching methodologies normally takes the form of learning the “past-present continuum”, and A. A. Leontiev suggested using more “fictitious circumstances”. Foreign language textbooks should preferably be designed like a work of interesting literature, allowing for the reader’s transference of its “heroes”. The L2 student should be confronted with the task of
performing a speech act “together with” or “instead of” the hero. This type of motivation includes the understanding of speech intention, which is a core aspect of functional grammar [from content to expression]. Within this framework, one does not speak of competency or proficiency, but of mastery. A. A. Leontiev is very clear regarding the mastery of a new language, which is a transition to a new world image. The creation of a new world image is the basic goal of A. A. Leontiev’s psycholinguistic theories, used to develop a more unified “personality.”

Language is a system of orienting points, necessary to act in this world. This system can be used for self-orientation or for the orientation of ‘others,’ or our partners—this difference is not a matter of principle. Communication is mainly a type of ‘correction making’ of others’ world images. Consequently, the mastery of a new language is a transition to a new world image, necessary for mutual understanding and cooperation with people speaking this language. To serve as a means of communication, language must ensure a common or similar understanding of reality. And, on the contrary, [it represents] a similarity in understanding reality, in a co-coordination of actions; and, within it the possibility of adequate communication as a precondition is provided. (A. A. Leontiev, non-published paper, n.D., p. 3)

**Bibliography**


