Recording A

Luria: Well, now Daniil Borisovich Elkonin, just a second until it scrolls.

Elkonin: I am the latest student. I met, that is, I knew Lev Semenovich, I knew him back in 1928 when I was still a student. He was at the Behavioral Congress in Leningrad. I was familiar with all his work, but I actually started working under his guidance and with him in 1930, still during the lifetime of Professor Mikhail Yakovlevich Basov.

Lev Semenovich was invited to Leningrad to give lectures. This was before your departure to Kharkov. He was invited to lecture at the Herzen Pedagogical Institute. There was a special department back then, it was called the pedological department, where they trained specialists—psychologists and pedagogues—and where I was working at the time, having graduated in 1927, so it was three years after my graduation.

Question from MLK: And whose student were you, Basov's? It's unclear.

Elkonin: Well, in general, I was closely connected with Basov, although I wasn't directly part of his student group. I was a practical worker in one of the consulting services on the railroad, on the October Railway. There was a preventive laboratory there, and I was a practical worker. Then, when Lev Semenovich appeared later, he needed an assistant, and Mikhail Yakovlevich remembered me. So, I was invited to the Herzen Institute to work, and that's how I started working together with Lev Semenovich.

But until the death of Mikhail Yakovlevich Basov, who died in 1931, these trips were purely lecture-based—he would come, give lectures on child psychology, and I would assist him and run seminar sessions afterward. After Mikhail Yakovlevich Basov's death in 1931—he also passed away very young—Lev Semenovich was invited not only to give lectures but also to supervise postgraduate students and diploma candidates. In short, it was a more serious role, and he started coming more regularly. He came to Leningrad almost every month for 7 to 10 days. During these 7-10 days, he gave lectures, held consultations with students, postgraduates, and so on. I was his direct assistant, and when he left for the other three weeks, I did everything else—led seminars, consultations, and so on.

This period seems to me to be characterized by the fact that Lev Semenovich began researching certain issues…Well, the problem of the development of higher mental functions was already more or less developed. The main things, in fact, were already done. The book on the development of higher mental functions in their formation and decay was already written, and it was ready. The work on tools and signs was already written. There were a number of things related to his theory, his theoretical concepts, which were mostly done. Then, in Leningrad, experimental work mainly connected to these issues of learning and development and the role of different types of activity for development began.

Perhaps, in part, I don't know what influence Mikhail Yakovlevich Basov's work had on this, as he was generally interested in the problem of activity. Although he was dealing with these issues at the time, it's hard for me to judge if it had any influence.

Luria: They were very kind to each other.

Elkonin continues: They were very kind to each other. Mikhail Yakovlevich Basov had great respect for him. He was one of those researchers whom Mikhail Yakovlevich respected a lot, even in an emphasized way, in some sense. And then a series of studies on problems of learning, development, and play began. From these studies, the following can be mentioned: firstly, his postgraduate student, Josephine Ilyinichna Shif, who did work on the development of scientific and everyday concepts in Leningrad. Then, his postgraduate student Tanechka Konnikova did work on autonomous speech.

Morozova: Still unpublished, by the way.

Elkonin continues: Yes, it's still unpublished, that work on autonomous speech. Then, I did a comparative analysis of oral and written speech in schoolchildren, which also was never published and never appeared in print. I defended it only in 1941, already after Lev Semenovich's death, long after his death, because there were events that prevented me from completing it on time.

In addition, there were large diploma projects, which also dealt with issues of grammar and development, mathematics and development. These projects were partially reflected in publications made in that little book. It's noted there that the book used the works of diploma students, a number of people working on what's called learning and development, the acquisition of grammar by children, their understanding of mathematics, the concept of number, the decimal system, and a whole range of such things.

Thus, it seems to me that this Leningrad period or, in any case, my connection with Lev Semenovich during this period, was primarily focused on this work.

Additionally, Lev Semenovich and I began a large series of studies on play, which continued even after his death. After his death, I continued supervising some of the works that had started. But by 1931, I had been appointed, also thanks to Lev Semenovich—he had advocated for it—as deputy director for scientific matters at the huge Leningrad Institute, the Russian Pedological Institute. It was a large scientific and practical institution, and I worked there in administrative and scientific roles after Lev Semenovich's death.

"And so, this work continued.

Among the studies on play that were conducted but never published, only the materials for them were collected. Unfortunately, those materials are no longer available. For example, there was Olga Naumovna Varshavskaya, who died during the war in Leningrad. She had conducted research on the transfer of meaning from one object to another, which was linked to earlier work by Natalia Grigorievna, but it was focused more on the context of play, with the goal of revealing the nature of this process—how

meanings are transferred from one object to another. Then there were the studies by Gershenson on rules in play and how children take on roles during play. Unfortunately, none of these works were ever published.

Bozhovich: And what did Fradkina work on?

Elkonin: Fradkina was also part of this group. There was quite a large group that included Gershenson, Fradkina, Varshavskaya, Talebanov, Schiff, and Konnikova. I don't remember all the members.

Morozova: Elkonin?

Elkonin: Elkonin was more of an organizer and consultant in Lev Semionovich's absence, and later, after his death, I took on the role of unifying the work. Fradkina started working on the genesis of play activity, focusing on early childhood and the early forms of play, but she finished her work under the supervision of Alexey Nikolaevich when he began visiting Leningrad after the 1937 Central Committee resolution on pedological distortions. At that time, he invited me to work with him at the Academy of Education, which had been relocated, and that's when Fradkina's work was completed. Simultaneously, in Kharkov, Lukov conducted work on the awareness of speech.

So, I would say that my connections with Lev Semionovich were centered around these issues—the issues of learning and development, as well as all matters related to developmental psychology in the strict sense of the term.

MLK: Daniil Borisovich, what did you do during the war?

Elkonin: I fought, dear comrade!

MLK, surprised: Really?

Elkonin: Yes! Not only during the war, but also for eight years afterward. In 1941, I volunteered for the front. I fought for four years on the Leningrad front. After the war, I wasn't released from the army and was held for another eight years. I was discharged only in 1953. But after the war, I did participate in this work again. Well, on somewhat limited terms, and then Vladimir Alexandrovich (Wagner? NG) gave me a half-time position in Moscow.

Luria: What can you say about Vygotsky's relationship with Wagner?

Elkonin: I can say the following about Vygotsky's relationship with Wagner: Lev Semionovich not only felt deep sympathy for Vladimir Alexandrovich, but also had tremendous respect for him. He considered him the founder of comparative psychology in the world. He often visited Wagner and even introduced me to him. I knew Wagner as a student because he taught us comparative psychology, and we worked with his two-volume work on comparative psychology and biopsychology. There was a book on

the topic before the release of these smaller publications. I attended his lectures, and Lev Semionovich often visited him. Wagner lived in an apartment on Chernyshevsky Lane, on the grounds of a commercial school. He had a truly exceptional office there—an anatomical and biological one—where he worked after he stopped teaching at Leningrad University.

(Inaudible speech 12:35) **Elkonin continues:** Wagner was an ontologist. He had a remarkable book on spiders and those two volumes. I don't know much about their personal closeness.

Luria: There are several very tender letters from Vygotsky to Wagner.

Elkonin: Vygotsky treated him very tenderly and respectfully. Once, I was with Vygotsky at Wagner's, and they were talking about the future of psychology. Wagner said, "Well, Lev Semionovich, you know, psychology nowadays develops like a centipede, at the periphery," because, at that time in Leningrad, Pavlovian reflexological viewpoints dominated. Wagner was opposed to Pavlov and spoke out publicly, which, of course, created an atmosphere that wasn't too favorable for him. Lev Semionovich had a very good relationship with Wagner, and I personally got to know Wagner thanks to Lev Semionovich. I knew him as a student, but I got to know him personally through Vygotsky.

Luria: I think if you look for Vygotsky's roots, one group of roots is in philosophy—Spinoza, Marxism.

Elkonin: And Ivanovsky, whom he always mentioned.

Luria: The second group of roots is Wagner. And the third group is Potebnya and those linguistic theories.

Elkonin: Shpet, and so on.

Morozova: And connections in the arts, with Eisenstein.

Bozhovich: That's more peripheral.

Male voice #2: It's unclear who influenced whom in that case.

MLK question: Do you mean that Vygotsky influenced Eisenstein?

Luria: In terms of psychological worldview, I think, to a large extent, yes.

Morozova: Vygotsky interpreted Eisenstein, analyzed him.

Male voice: Yes.

Luria: But the early roots, of course, are in his early teachers.

Elkonin: Interestingly, Vygotsky probably didn't systematically teach a course on child developmental psychology anywhere else.

Bozhovich: Wait, didn't he teach pedology?

Elkonin: He taught pedology at the Moscow Medical Institute.

Bozhovich: The transcript we have?

Elkonin: Yes, the introduction. It's seven lectures, but they don't address specific ages—only general questions.

Bozhovich: General questions on development!

Luria: You know, all of that is included in the fourth volume we've prepared.

Bozhovich: You'll never publish it! It's been so many years already!

Elkonin: But at our institute, he taught a systematic course on developmental psychology. He was an absolutely brilliant lecturer! All of Leningrad came to hear his lectures. During that time, he began working on a book. A book on developmental psychology. He personally wrote two chapters—*The Problem of Age* and the absolutely amazing chapter *Infant Age*. These chapters haven't been published yet, but we have the manuscripts.

Female voice: Dania, forgive me, but how do these planned works relate to the correspondence courses on pedology for younger schoolchildren and adolescents? Are you familiar with those works?

MLK: I know that one of them was published, I think.

Female voice: They were all published, but only as manuscripts.

Luria: It was easier to publish them.

Elkonin: Yes, they were published before the Leningrad period. *Pedology of the Younger Schoolchild* was published in 1929, and *Pedology of the Adolescent* in 1931, if I remember correctly.

Male voice: Was this at the Second University?

Elkonin: It was called the Institute, Correspondence Learning Bureau at Moscow State University. And he wrote these works. I don't know if this is correct, but it seems to me that Vygotsky was always deeply interested in childhood and its development. It was an

unrelenting interest—first from the point of view of genesis, and then in substance. Because everything—new formations, the entire problem of education and the systemic, meaningful structure of consciousness—everything came from childhood.

Female voice: Not everything, because simultaneously there was development and break down—his central thesis.

Elkonin: I only participated in the part related to development."

Elkonin: I only participated in the part related to development.
Luria: The breakdown happened both earlier and later!

Elkonin: Because I had never participated in this before. The development of ideas about the systemic structure of consciousness, its evolution, new formations, how different functions play different roles and hold primary importance—these issues connected with learning and development, the development of play, transitions from one period to another, crises, and so on—unfolded before my eyes.

Luria: I hope this will be published in a large volume.
Elkonin: Really?
Luria: We'll see...
Female voice: In which volume, the one that will be published in the Soviet Union? God willing.

Female voice 2: And a huge part of his research on concrete psychology at the psychological institute, analyzing children...

Luria: Well, that's already lost!

Female voice: What is lost?

Luria: His analyses.

Elkonin apologizes, saying he has another meeting, and leaves the group.[NG]

Lidiya Ilyinichna Bozhovich: I recall the early period very poorly. To my shame, I can't remember the content, only the method, the plan, some experiments on imitation. It was all done when we were students in our third and fourth years. The manuscript lay with me for a long time, but I never returned to it, and now I can't even say exactly what was obtained there.

Luria: And the idea was that monkeys don't know how to imitate.

Bozhovich: Yes, exactly. That imitation, in general, requires a certain level of understanding, intellectual activity. The experiments were usually done using the method of double stimulation. Two children were seated side by side, and then, as always, given a memory task with a pencil and paper so they could somehow, without writing, note what they needed to remember. Two children of different ages were seated together, and the younger one could watch how the older child did it. We observed how the younger child used the older one's experience, and to what extent they could grasp it…

Morozova/Levina: I'll remind you, the main idea, as I remember it now, was that imitation was always mentioned as a way of learning or acquiring some experience, but imitation itself was not the subject of research. Well, yes, here we made it the subject; we studied imitation itself and its development.

Luria: So, imitation as a means (tool)

Morozova/Levina: Yes, imitation itself became the subject of study—the development of imitation. Initially, it was mechanical, then meaningful, and later, more generalized, with the child absorbing only parts of what was being imitated. I think this is a very important idea.

MLK (commenting): Here, it seems to me that your idea of imitation, or how to describe it, is very close to the concept of the zone of proximal development.

Luria: That's different.

MLK: But they are related.

Female voice: It's clear—they must be connected.

MLK: After this, there were very few good works on this topic. Why do you think that happened? The idea, in my opinion, is excellent, but there are still very few works on it.

Morozova: Right now, there's a great need to work on it.

Morozova: In our research in defectology, we encounter the need to study imitation and the zone of proximal development specifically. Lev Semyonovich gave it in general terms: what a child can do with assistance later becomes their zone of actual development when they begin doing it independently. But how they reach this point, at what stage, and how transitions occur—none of that has been researched yet. This idea still lives on...

Luria: These are scattered thoughts.

Morozova: Yes, from all who interacted with him. Now, I'm assigning my graduate student, who is researching pedagogical methods for studying children with abnormalities, to investigate the zone of proximal development in its specific manifestation during a pedagogical experiment.

MLK: Then we can exchange works because I have material on this subject. I can send it to you.

Morozova: Very interesting, yes. I'll send you mine, if it works out.

MLK: It seemed to me that there were many experiments, but they weren't published. I think it wasn't just due to a lack of paper or printing presses, but because the idea wasn't fully developed.

Bozhovich: Perhaps, but we must also acknowledge that the further development of Lev Semyonovich's idea of the zone of proximal development...

Female voice (Morozova or Levina): By the way, that wasn't Lev Semyonovich's idea of the zone of proximal development.

Luria: What are you saying?

Morozova/Levina: Lev Semyonovich said himself that he read about the zone of proximal development from some Italian scholar...

Morozova/Levina: Yes, he read about it, just like he read everything else. There was probably some terminological overlap, but we still don't have...

Luria: No, but Michael is right—much was done, and little was published. Not because there wasn't paper or printing presses, but because the focus was on developing people, researchers.

Bozhovich: Well, I wasn't focused on developing people—maybe you were.

Morozova/Levina: We were just the material back then.

Morozova/Levina: I think it's not just that—we thought these were elements of a larger future framework.

MLK: Ah! Right?

Female voice: We thought it was premature. We didn't even believe it had independent value yet; it was still a semi-finished product.

Female voice 2: No, we were very young and inexperienced. But after all, we were in our third year. We conducted these experiments just to see, to try.

Luria: And afterward, we didn’t have the strength to turn it into something systematic.

Morozova: And there was no clear focus.

Bozhovich: It seemed we were laying the groundwork for a theory but were acting more as hands than as fully-fledged researchers.

Bozhovich:
So, I think that, neither in terms of time nor experimentally, these works on the zone of proximal development are related to imitation. But it is possible that some general ideas came to Lev Semyonovich at that time — some general idea of this zone.

Morozova/Levina:
I want to say they were different. Lev Semyonovich always emphasized, as far as I remember, that there were "smart" imitations and "stupid" imitations.

MLK:
Yeah!

Morozova/Levina:
That was on everyone's lips, and when we saw a fact of this kind in life, we always said, "That's a stupid one."

Luria:
"Smart" means focusing on the essential.

Morozova/Levina:
Smart imitation drives development. So, there is imitation and there is imitation…

MLK (20:34):
But it seems to me that in personality theory, this is a very complex topic, and it is quite far from personality theory. And it's far from the ideas of Vygotsky that I have read. It's still too complicated. Am I wrong?

Bozhovich:
I'll say, I'll say. I just want to pause on the early period.
After we did this, still as children, you could say, as first-year students, I also went to do practical work in another city, as was expected. When we returned, the question of how and where we could combine everyone's efforts became very pressing. We wanted to work together and to create a kind of lab where each of us could find a place. Since it was absolutely impossible to do this in Moscow, the idea of moving to Kharkov came up, where we had the opportunity to get an entire department, and we thought...

Luria:
At the Psycho-Neurological Academy.

Bozhovich:
Yes, at the Psycho-Neurological Academy. Lev Semyonovich was supposed to move there, as were Aleksandr Romanovich and Aleksei Nikolaevich, and so did we. But Lev Semyonovich didn't move; he traveled there regularly to consult. However, Aleksandr Romanovich, Aleksandr Vladimirovich, Aleksei Nikolaevich, and I, we moved there. On a personal note, I had just received a letter from Lev Semyonovich — I had just recently had a child, left my family, and went to Kharkov to work. In that letter, he wrote: "This will someday be part of your scientific biography." And indeed, we moved there and worked, leaving everything behind.

Well, in Kharkov, we took a certain position, a line of research that was not directly connected to what Lev Semyonovich was doing at that time. Maybe, Aleksandr Vladimirovich, you can tell more about it. We worked a lot on practical intelligence, speech forms of intelligence, and the transition. We replicated Keller's experiments to a large extent on infants, using tools.

Luria:
The relationship of the "extended hand" to real tools.

Bozhovich:
Yes, first, the use of tools, and second, the transition from pure visual connections to the ability to grasp mechanical relationships. From there came the problem of transferring intellectual operations from one situation to another. That was, so to speak, the thematic focus of this work.

MLK:
Did it work out successfully?

Bozhovich:
Well, in my opinion, it turned out to be interesting at least. But I don't consider it a period that significantly influenced my later work.

Luria:
It was more of a product, and the product was Zinchinko-the-father, Lukov...

Bozhovich:
Yes, yes!

MLK:
Was there anything published from this work?

Female voice:
No, there were...

Bozhovich:
Some things were published. I personally became interested in the relationship between everyday and scientific concepts and did some work on the relationship between these concepts. But in a somewhat different way than it was done by Schiff under Lev Semyonovich's direct supervision. What I did was explore the process of mastering scientific concepts and the relationship of this process to the concepts the child already possesses when they begin to learn the corresponding scientific concepts. And here, frankly, I conducted an experiment that I would now call almost naive. I took certain courses...

Recording B
Bozhovich: Learning physics, let’s say Archimedes' principle, the law of pressure, I did a very simple thing. First, in real-life situations, with kids who, generally speaking, hadn't yet studied this law but were already prepared to learn it. Although I took a few age groups, some younger as well, and then I would ask: “Here’s a spoon, for example. What do you think, will it float or sink?” They would answer based on their everyday experiences.

— “It will sink.”
— “Why?”
— “Because it's made of metal.”
— “But here’s a metal can. Will it float or sink?”
— “It will float.”
— “Why? It’s also metal, and the bottom is intact.”
And so on, and so on. Later, they were given the corresponding lesson, so that they perfectly understood it within the physics class and could illustrate it very well with examples. Then I would return them to the same situation and observe what had changed in their thinking. This work, I believe, was the first major contribution that sparked my interest, which later developed on its own. Although, as I see it, it follows the ideas of Lev Semyonovich Vygotsky, and I'll explain why.

Besides, it became very clear that before children start mastering scientific concepts, they already have practical everyday concepts that guide them correctly enough in their actions. For example, not a single child, from preschool age onwards, made a mistake about which object would float or sink. There existed some sort of unconscious, intuitive knowledge of specific gravity.

I discovered that some children could easily be puzzled when confronted with a situation where their explanation didn’t work for a different object. If a child can see contradictions in their own reasoning and, as a result, ask: “Why is that? Explain it to me.” If the explanation meets such a need, then when they return to the same situation, they can solve the problem based on scientific concepts. If this question doesn't arise, if there's no need for an explanation, nothing happens. Their knowledge remains encapsulated; they don't apply it to life. It stays formal; they can recall it, but it doesn’t change their view of the world.

Do you remember, Alexander Romanovich, when we asked about the law of pressure, and the students clearly explained that it depends on the relationship between weight and surface area? They even gave the example that a tank exerts less pressure on a unit of surface area than a person. We then naively asked them: “Why is it that if a person steps on a dog, it won't crush it, but if a tank runs over it, it will?” One student replied: “Physics has nothing to do with dogs.” This is quite typical.

From here, my interest in the problems of needs arose, and thus began my research into motivational spheres and the development of the need sphere. Following Semenovich’s work, I developed ideas about how, similar to cognitive processes, there’s a process of mediation, the emergence of new functional systems in the realm of needs. Just as cultural development occurs in cognitive processes, it happens in the sphere of needs and emotions as well. I concluded that the development of cognitive processes is incomplete without considering that new cognitive systems include an emotional component.

Later, I found in Lev Semyonovich's archive materials that he also started to see the meeting of affect and intellect as the central issue. The transformation of emotions from basic emotional elements into higher functional systems became crucial for him...

MLK: That’s why he returned to Spinoza?

Luria: He started with Spinoza and ended with Spinoza.

Bozhovich: Exactly. I won't go into more detail, but if you're interested, I can send you an article.

Morozova: Interest in cognitive processes only emerges when there’s an emotional experience, the joy of learning.

MLK: I’d love to talk about this more because I find it personally very interesting.

Bozhovich: Well, you see, in the second issue of *Questions of Psychology*, my article on the cultural-historical development of the psyche will be published. There, I substantiate this idea in detail. Early on, during the instrumental period—the method of double stimulation, when we were looking at mediation—I was constantly tormented by one question: Okay, someone ties a knot, and we understand the operational side of the process. Memory becomes mediated. But *who* is doing this?

MLK: And why?

Bozhovich: Exactly, why? When I asked Lev Semyonovich this question, it irritated him a little, I could sense it because he didn’t have the answer then. Later, we had a very detailed conversation, and he said that we must learn to scientifically do what artists in literature can do by other means. If he thought that what we were working on was the entirety of psychology, he would have stopped doing it.

Now, as I reread his works, I keep finding this idea: the highest problem is the personality, and understanding the role of the emotional and need systems in forming the functional systems where personality is involved. This direction was already outlined

in his earlier work, but now I've come close to attempting to understand willpower as a functional formation, as a stage in the cultural development of needs. This is the problem of emotion, and that's all I wanted to say.

MLK: So, the problems of Pierre in *War and Peace* remain relevant?

Bozhovich (laughing): Yes, yes.

Luria: Alexander Vladimirovich Zaporozhets,

Zaporozhets:
I think it would be interesting for you to know, so to speak, about the general atmosphere, which I personally experienced very vividly. You see, I initially enrolled in the university's physics and mathematics department. Later, I heard lectures on psychology by a prominent figure of his time, Nikolai Nikolaevich Kornilov, a popular and brilliant communicator, and decided to pursue psychology.

Luria: Kornilov always had a way of attracting freshmen.

MLK: I must say, Pavlov made a great impression on me as well.

Zaporozhets:
Pavlov, of course, was a major figure.

MLK: Simple theories often captivate us at first because they seem easy to grasp.

Zaporozhets:
Yes, well, at that time, new trends were replacing the subjective-mentalist psychology that had previously dominated the university. These were new, domestic currents of behaviorism, mixed with older subjective empirical ideas, which increasingly disappointed both me and my peers. All those hopes that psychology would reveal the inner workings of the human mind and the laws governing it—those dreams were shattered. When we got down to actual research, all we could see were reactions like pressing buttons, and nothing more.

MLK: The Soul didn't show up?

Zaporozhets: The soul didn't show up.

I don't know if we heard this together, but I first heard a lecture by Lev Semenovich [Vygotsky] at the Second Moscow University, and it left us all absolutely stunned. Not just because, as my colleagues said, he was a brilliant orator, presenting his ideas logically and expressively, but because he opened up a completely new world for us. The possibilities regarding higher mental functions, human thinking, emotions, and the laws of their formation were simply captivating.

Bozhovich: He conquered us!

Zaporozhets:
Yes, we were full of youthful enthusiasm. *All five of us*—"paytoyrka" -- it's been so many years now, almost half a century!

Bozhovich: **Half a century!**

Zaporozhets:
At first, we were just amazed, but then Alexander Romanovich [Luria] helped us find direction.

Bozhovich: Yes, and partly Alexei Nikolaevich too.

Zaporozhets: But Alexander Romanovich was the most active.

MLK: The difference in their personalities is well-known.

Zaporozhets: Yes, indeed.

He had the courage to organize a seminar on pictograms, which made us real psychologists. It taught us how to investigate, how to analyze material, and how to approach problems. We owe him everything.

So then, as I already mentioned, Natalya Grigoryevna, well, he took me, a senior student, as a lab assistant to his Academy of Communist Education, and we all, so to speak, moved in that direction, because it became, so to say, the center. Alexander Romanovich headed that department—it was probably the best department I've ever seen in my life, not just a department, but brilliance! And then we were involved in this intense creative work that was always buzzing. Well, comrades have already shared a lot about interesting research here. Maybe some things will be of interest to you. Some forms of this collective work, but there were also these, so to say, impactful tasks. Suddenly, Lev Semyonovich would come up with an idea, an unresolved question, and we'd all dive into it, trying to solve it. I remember, as if it were now, you may have forgotten, but this idea of mediation, instrumentality, as he put it, was at the forefront.

Where does this tool, this instrument, come from? There were different views—Stern had an idea that the child invents it themselves, and then there were others. And so Lev Semyonovich encouraged us all, and we all started to search through various materials—find, observe, where this invention might emerge. We struggled for two weeks, and then we came back, and I personally hadn’t seen any invention, thinking maybe the girls had managed to find something in the child. But I saw their faces were downcast, too, and thought, "Not much luck there, either." So, Lev Semyonovich and Alexander Romanovich said, "Report!" We started to report, and we were apologizing, saying we hadn't fulfilled the task. Then he suddenly says, "Exactly right,"—he says—"the child doesn't really invent this tool, he absorbs it." And we need to build the experiment not by waiting for divine inspiration but by giving it to the child, directing them, and observing if and how they take it.

Bozhovich: Again, imitation.

Zaporozhets: Yes, again, I wanted the mastery of the tool. Then, of course, he gave an individual assignment—he called me and said, "They're writing these stages of observation—first the listing of objects, then pictures, then actions, and then relationships. It all seems suspicious to me. Go and see how this plays out in different forms—let the child describe it, depict it with objects, play it out in a game, and so on." So, I went, and indeed, it turns out to be completely different. When he describes, there's a girl, a boy, a dog, and some other things. But when it's in action, he portrays actions and relationships. The most curious thing was that he knew everything in advance. Later, he called and asked, "What did you find?" And then he said, "Now I can

tell you what should have happened." He didn’t tell me in advance to make sure I wasn't biased while collecting the facts.

Luria: And the end of this story was on my couch! Stern came to Moscow. I invited Stern and Vygotsky over. They sat on the couch, and Vygotsky destroyed Stern's 20-year-long work in three minutes, saying that these were not stages of perception, but stages of speech! Stern scratched his head and said, "Yes, you might be right!"

Bozhovich: Sasha, now be sure to tell them about how we struggled. When the little child is sitting behind a large table, the goal is lying there, and he's supposed to reach it, and they put a stick in front of him. And these scamps, already four and five years old, stretch their hand and completely ignore the stick! The monkey uses the tool! But the child stretches, tiptoes, jumps, but doesn’t use the tool! And then Alexander Vladimirovich got irritated and said, "Take the stick!" And the child responds, "Any fool can get it with a stick!"

Luria: He thought he had to do it in a special way, otherwise the task seemed ridiculous.

Zaporozhets: Well, we were lucky because we plunged into this creative work, guided by Lev Semyonovich and Alexander Romanovich, who led the lab. Alexey Nikolaevich joined as well—it was a great fortune for us.

As for my work at that time, you see, what is a lab assistant but a "senior who goes wherever he's sent"? We had to do everything, even bringing children off the street for experiments.

MLK: Right off the street?

Zaporozhets: Yes, yes.

Bozhovich: Well, our subjects were in the yard by the house; we had no other choice.

Zaporozhets: And there was one kid, a mixed-race boy—do you remember him? We adored him, a very cheerful boy, but streetwise and mischievous, foul-mouthed. Once, Alexander Romanovich asked to demonstrate a Piaget-style dialogue with him in front of students. I brought him in, but when asked, "What happens if you pour…?" he suddenly blurted out a three-story curse! Alexander Romanovich said, "Take him away quickly, he's trouble!"

Luria: Do you remember, "I don't know how to do four!"? He would count, "One, two, three, five, six…" Where's four? "I don't know how to do four!" He counted, "One, two, three, five, six…" Cubes—it took a huge abstraction to leap to four.

MLK: Yes, "I don't know how to do four!"

Zaporozhets: That was our lively life. But regarding experimental work, around that time Alexander Romanovich's work on motor skills with the coupled method was wrapping up. There were already some shifts happening, I think, under the influence of Lev Semyonovich, concerning the role of speech in organizing movements. Then I had an idea, and Alexander Romanovich supported it. It intersected with what Natalya Grigoryevna was doing on the natural history of signs—this related to drawing. This stemmed from pictograms, so to speak. The idea, influenced by Lev Semyonovich, was

to abandon the concept of inventing a sign. Lev Semyonovich developed the idea that a sign first appears as a means of communication and only later becomes internalized as a means of mastering one's material. I managed to compile some facts showing how in the realm of communication with drawings, there are peculiar shifts. Initially, even a drawing or graphic depiction doesn't serve a symbolic function but rather an emotional-expressive one. And only later does it become a sign proper, representing. At first in some figurative form, then abstracting into more symbolic meanings. I had a curious collection of such findings, even included by Alexander Romanovich in his *Affect, Conflict, and Will*. For instance, children would draw: "Draw a good girl." The child would draw softly, delicately. Then "Draw a nasty boy," and the drawing would be rough, harsh. I also used graphic analysis of these things, and differences appeared even in the pressures of the strokes. By analyzing the gamma-gram, one could discern whether it was a dramatic or lyrical scene. But as the child grows, these elements fade, and symbolic functions take precedence.

This was one line. Another was about the planning role of thinking and speech, a topic mostly taken up by Roza Evgenievna. Lidia and I also worked on this—do you remember? We even made a film about it, though sadly it has been lost.

Luria: The entire psychology course revolved around the films we made ourselves.

Zaporozhets: Yes, yes, we made them ourselves, even with the limited technology of the time.

Bozhovich: We filmed *Speech and Intelligence*.

Zaporozhets: Yes, yes, the planning function of speech—how children solve problems. We had a whole film about it, showing how young children tackled Köhler-style problems. Then we stimulated their speech by introducing a conversational partner, or by having an adult engage them, stimulating their speech and helping them move beyond their immediate perceptual field into a meaningful one, as Vygotsky used to say.

In the early 1930s—I can't remember if it was 1931—we moved to Kharkov. Alexander Romanovich, Alexey Nikolaevich, and Vygotsky initially moved there, as well as Lidia Ilinichna and I, representing the younger generation, though the age gap wasn't too significant. Alexander Romanovich was only three years older than me. He had been working in the field from a young age, while it took me some time to get into psychology, as I had various other interests.

So there, I wanted to talk a little more in detail. A new line of research began, which followed a different direction. Lev Semyonovich gave us general guidance—very clear, by the way, particularly in his critique of Piaget. Lev Semyonovich visited for about a year and a half. Lidia Ilinichna and I even assisted him in his child psychology work at the Pediatric Institute. But in reality, he didn't get too involved—his health was poor, and his family didn't want to move, so it didn't work out, and he didn't relocate. Alexander Romanovich, Alexey Nikolaevich, and the two of us remained. Gradually, though, everyone started leaving—first Alexander Romanovich, then Lidia, then Alexey Nikolaevich, and eventually, I was left alone.

So, what was this new line? It was crucial for… It was fundamentally important for the history of Russian psychology because this is where the idea of activity and the role of

activity, particularly practical activity, in the mental development of the child and in mental development in general, first emerged.

In this regard, the research of Lidiya Ilinichna Bozhovich was focused on these forms of practical activity in children and how generalizations arise from them.

Bozhovich: None of it was ever published.

Zaporozhets: Yes, yes. These were very interesting works, and they played a significant role in our development at the time. Then my own work followed, which examined the role of practical elements and speech in the mental development of children, using deaf-mute children as the material. I tried to show, first of all, that the whole process of practical activity, the practical experience that Vygotsky pointed to, occurs before the child..."

THE END.