# Comments on Commentaries About *Cultural Psychology*Michael Cole Laboratory of Comparative Human Cognition University of California, San Diego

I wish to thank Andrei Brushlinkii for his kind invitation to enter into a discussion with Russian colleagues who have taken the time to read and comment on my recent book. The invitation to discuss the role of culture in human development in this forum is, as the expression goes, "the opportunity of a lifetime" because I have sought to promote dialogue between American and Russian psychologists for most of my professional life – long enough to know how rare and difficult such dialogues can be.

It is almost exactly 38 years to the day since I arrived at the old Sheremetovo airport (the *old*, old Sheremetovo) ready to begin a post-doctoral research working under the guidance of Alexander Luria. During that year I worked not only with Luria and his students, but with Evgenii Sokolov and the members of his laboratory and with colleagues at the Institute of Higher Nervous Actvity. I was exceptionally fortunate to be given a warm welcome and generous support by my hosts, to whom I remain indebted to this day.

The 1962-1963 academic year was anything but a placid time in Moscow. The end of "the thaw" had arrived. For several weeks that fall we sat huddled around our radio in the company of Cuban students, knowing how close the world was to thermonuclear holocaust, a concern which was not felt so sharply by our Russian peers, who did not have access to such radios, and whose own media minimized the dangerous passage through which the world was going. Our Russian acquaintances had their own concerns, among which was the harm that would come to them if they became too friendly with us -- the ino-strantsi who came from that other world.

It did not seem even remotely possible in 1962 that some day, when I had grown older than Alexander Romanovich was when I first met him, I would be responding to a series of commentaries about a book which, in large measure, he helped to make possible. I did not arrive in Moscow knowing much about cultural-historical psychology and I did not leave knowing much more<sup>1</sup> The first, abbreviated, translation of *Myishlenie i Rech* first appeared in English while I was in Moscow. But I did not have a copy of the translation and I was too busy pursuing empirical research on orienting responses and semantic conditional reflexes in temporal lobe patients to take time out to read the book in Russian. Besides, although Alexander Romanovich seemed to think Vygotsky's ideas very important, Vygotsky didn't seem to have much to say about semantic reflexes and I was disinclined to spend my time studying someone so "old fashioned." In this respect, I was a typical product of American graduate training, then and now.

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<sup>&</sup>lt;sup>1</sup> For those so inclined, the talk I gave at the Memorial Conferences for Luria in September, 1997, provides more information on my own background. It can be found at http://lchc.ucsd.edu/People/

Over the next several decades, I became more and more involved with Soviet/Russian psychology and psychologists. I had the good fortune to be allowed to carry out a series of research projects on culture, schooling, and development in various non-industrialized parts of the world. These experiences led me to reassess lessons that Luria had tried, unsuccessfully, to teach me during my first stay in Moscow, in particular the significance of Vygotsky's ideas. My research interests gradually expanded to include studies on teaching-learning among children in the United States both in schools and in less formal learning settings. Increasingly, over time, my ideas became more heavily influenced by my understandings of Russian cultural-historical psychology so that by the time I came to write *Cultural Psychology*, those ideas, combined with ideas from anthropology, were foundational to my research, theorizing, and practice.

Consequently, it was with great interest that I awaited professional response to *Cultural Psychology*. I had, to an unusual degree, taken theoretical inspiration from a school of Russian psychology which I had combined with certain strains in American psychological and anthropological theory. Would the resulting hybrid framework appear fruitful to psychologists in its country of origin? Would it make any sense at all? What would reviewers choose to write about and how?

The remarks to follow are in response to 7 reviews, those by Brushlinskii, Shapiro, Blinnikova, Bratus', Kornilova, and Shapiro (published in *Psikhogicheskii Zhurnal*) as well as the review by Meshcheryakov & Zinchenko (published in *Voprosii Psikhologii*). I very much appreciate that these reviewers come from a number of different scientific institutions and approach the issues at hand from different perspectives. It is clearly impossible to respond at length to each review. As a result, I have tried to organize my comments to address certain themes common to the different authors, supplemented by a discussion specific concerns highlighted by particular authors which point to concerns of broader interest.

#### **Concerning Translation**

There are several places in the discussion where commentators note their concern with issues of translation. This is a problem with which I have great sympathy, having engaged in translation and editorial work correcting translations from Russian to English for many years. The difficulties are of various kinds.

The first concerns the fact that owing to differences in national theoretical traditions, individual words and phrases shift their meanings when translated literally, leading to attempts to find appropriate substitutes which will better convey the intent of the original. This kind of difficulty is evident in the comments of those reviewers who note that the titles of the English and Russian editions do not match and seek to interpret the significance of this discrepancy. Such interpretation is a risky business.

For example, the title of my book in English was not the title of the book I myself planned for it during the five years when I was writing it. The title I planned for the book was *Culture in Mind*, because of the two questions at the center of the book: Why is it that academic psychology finds it to difficult to "keep culture in mind" (for example, when theorizing about the process of development) and, What could psychologists do if they wanted to work within a culture-inclusive psychology and still win the respect of their colleagues? I found the double meaning of "culture in mind" a useful title because it expressed this duality of inquiry at the heart of the book.

However, just as the publishers were setting the book to print, another book with the title, *Culture in Mind* was published by a colleague in anthropology. My publishers insisted that I give them a new name for the book. Moreover, they were in a hurry: I had to provide a new title instantly, over the phone. I had once written a paper with the title, "Cultural psychology: A once and future discipline?" That sounded marketable to my publisher, so long as the question mark was removed. That is how the English title of the book came into being, much to my distress, because it distorted the nature of my project.

Given this background, it was somewhat odd for me to see reviewers read special significance into the title in Russian, "Kul'turna-istoricheskaya psikhologia: Nauka budeshevo (Cultural-historical psychology: Science of the Future). I presume it would have been possible to create an exact translation, but I am not entirely sure. But to my translators and editor, the term, "cultural psychology" seemed too evocative of a cultural studies academic tradition which this book does not represent and they were afraid its intentions would be misunderstood by psychologists, so it would miss its audience. In the book, I explicitly draw upon the theory of Vygotsky and his students as "my brand" of cultural psychology, and that "brand" is well known in Russia. The choice of Russian title seemed more likely to evoke the spirit of the content. I do not recall why the subtitle was changed of omit reference to the past as well as the future of cultural psychology. In English this expression is evocative of the tale of King Arthur and his roundtable, and of a well known novel about that mythical time titled The Once and Future King. I suspect the expression, "once and future" didn't translate very well. That is too bad, because I wanted to emphasize that the idea of a cultural psychology has a long and impressive history.... as well as a promising future.

A second kind of translation problem, closely related to the first, arises when specific terms have no precise equivalent in the two languages involved. This problem is of course widely recognized; as Marina Tsetaeva (1972, p. 151) once warned us, "Inie veschi na inom yazike ne myslyatsya." "Some things cannot be expressed in another language"). Many examples of this problem appear important with respect to *Cultural Psychology*.

Perhaps the "vesch" ("thinh") that caused the most difficulty for reviewers is the translation of the English word, artifact. My four volume Dictionary of the Russian Language does not contain this word, which is a loan word from English.

As noted by several commentators in this discussion, a Russian psychologist is likely to interpret "artifact" to refer to a distortion in an empirical study introduced inadvertently by an experimenter. This meaning is also familiar to American psychologists. However, it does not appear in my dictionary of American English where "artifact" is defined as "any object made by human work, especially a simple or primitive tool, weapon, vessel, etc."). This definition is no more helpful that one focused on accidentally introduced distortions into experiments, because it fails to acknowledge the ideal aspect of artifacts. Instead, it helps to explain the strong dichotomy in Anglo- American anthropology and psychology between material culture and culture as a system of meanings. One does not need the added burdens of translation to engender misunderstanding!

I thought that the translators' note on p. 131 of the Russian edition emphasizing the dual material-ideal nature of artifacts supplemented by citations to the work of Ilyenkov who devoted a great deal of attention to the issue would be sufficient to prevent this kind of misunderstanding among Russian readers. Judging from comments made by some reviewers, I was mistaken.<sup>2</sup>

The difficulty with the term, artifact, infects attempts at mutual understanding of another central term in this discussion, *culture*. The first four meanings of the term, culture, given in the Dictionary of the Russian Language (Moscow, 1958) are:

- 1. Sovokupnost' dostizhenii chelovechesekovo obshestva v proizvodstvennoi, obshchestvenoi I dukhovnoi zhizni (The cumulated achievements of human society in productive, social and spiritual life)
- 2. Yroven' takikh dostizhenii v opredelennuyu epokhu u kakovo-libo naroda ili klassa obshchestva. (The level of such achievements in a specific epoch for some human group or social class)
- 3. Prosveshchennost', obrazovannost', nachitannost'. (Enlightenment, educatedness, erudition)
- 4. Razvedenie, vyirashchivanie kakovo-libo rasteniya: kul'tivirovanie (Hortoculture; growing some kind of plant; cultivating)

The corresponding four definitions in my American dictionary are

- 1. Cultivation of the soil
- 2. Production, development, or improvement of a particular plant, animal or commodity
- 3. The growth of bacteria or other micro-organisms in a specially prepared nourishing substances, as agar.
- 4. Development, improvement, or refinement of the mind, emotions, interests, manners, tastes, etc.

Only the 6<sup>th</sup> definition in the English dictionary approximates the first definition given in Russian which approximates the conception of culture presented in *Cultural Psychology*: "the ideas, customs, skills, arts, etc. of a given people in a given period." Consequently, while it may be a mistake to conclude that the concept of culture in English "ne myslyatsya" in Russian, the semantic fields of

<sup>&</sup>lt;sup>2</sup> My own view is that the closest equivalents can be found in the adjectival forms, "iskustvenoe" and "artificial."

the respective terms are almost polar opposites in their orientation to the phenomena to which they refer. As I noted in *Cultural Psychology*, I was deliberately adopting the historical meanings of culture as a process of helping things grow from the Anglo-Saxon tradition because it seemed especially helpful for thinking about the process of human development in both a theoretically and a practically useful way. If the text is not read in that spirit, misunderstandings seem all but inevitable.

The same caution needs, of course, to be applied to other standard terms in widespread use by psychologists from Russia and the United States, which appear in writings related to the theme of culture and development. Especially relevant in this discussion are the Russian term, "dusha" and the English term, "mind." As Anna Wierzbicka (1989) has pointed out, "Thoughts related to *dusha* can hardly be thought in ordinary (idiomatic) English, and since in Russian a very high proportion of thoughts seem to be linked with the concept of *dusha*, to a Russian, the universe of Anglo-Saxon culture often seems to be characterized by bezdushie... (p. 55). The compounded problems that arise in a discussion about culture and development as a result of the different semantic fields of these terms are evident in many of the commentaries. For example, although they do not use these words, I believe that underlying at least a part of Meshcheryakov and Zinchenko's dissatisfaction with *Cultural Psychology* can be summarized by the idea that I offer only a "bezdushnaya" conception of culture.

In addition to terms which are essentially untranslatable as single lexical items, even though they *are* translated using single lexical items, there are also, of course, simple errors of translation. Perfectly competent translators can make errors because they work for low wages under difficult time pressure, as did the current translators. These can, of course, lead to misunderstanding.

I have not made a systematic study of the translation, but like Meschervakov and Zinchenko. I believe the translators are to be thanked for a fine job. I will give only one example of what I consider to be a mistranslation, because it was guoted in at least one review and seemed to be reflected in others. And it invites misunderstanding. It occurred on p. 127 where I list what I take to be general characteristics shared by various school of cultural psychology (as that terms in understood in Anglo-American academic discourse. On p. 104 of the English version, I wrote that cultural psychology "emphasizes mediated action in a context." This was translated (p. 131 of the Russian edition) as "Kul'turnaya psikhologia podcherkivaiet, chto vsyaskoe deistvie oposredstvovano kontextom." ("Cultural psychology emphasizes that any action is mediated by context") My guess is that the Russian should read something like "podcherkivaiet chto oposredsvenoe deistvia osuchestvlaietsa v kontexte." ("emphasizes that mediated action is carried out in context.") Even if my proposal is inelegant Russian, it includes a vital distinction that got lost in translation: an emphasis on the simulataneous necessity of mediated action and of a context in which that mediated action is constituted and has meaning as a higher psychological function.

Perhaps this translation underlies the odd (to me) idea expressed in one of the reviews that the process of mediation is carried out externally through the

socio-cultural context and internally through schemas. The entire characterization of "internal," "external," and "mediation" contained in this kind of interpretation sentence undoes the system of ideas that I tried to articulate using joint mediated activity as a unit of analysis.

## Comments on Selected Themes: oposredstvovanie and deyatel'nost' (mediation and activity).

From what I have written above, it should be clear that any discussion of the concepts of mediation and activity engaged in from American and Russian points of view would differ in a variety of ways, many of which are likely to be difficult to detect. This is especially true when the discussion remains at a theoretical and metatheoretical level, where fields of meaning fail to coincide in a myriad of ways.

In my book, I try to minimize the inevitable theoretical misunderstanding of discussion by grounding them in publicly describable activity settings which are broadly considered of social value (schools, hospital wards, youth clubs, etc). contexts beset intercultural intellectual discourse of the kind we are engaging in coincides with a difficulty. Reading the various discussions I noted that all made a sharp separation between my theoretical writing on culture and the origins of cultural-historical psychology (which was judged inadequate on a variety of grounds and (if they commented on it) the high value they placed on my empirical research, the practical activity was the object of that same theory.

My resolution of the unresolved issues and tensions with the tradition that owes its origins to Vygotsky was to take a very strong position in arguing that a real test of the theory required implementation. The test of the theory really is in practice, and the practices I went to were those environments in which children find themselves many hours of the day. I will return to the theory-practice issue in concluding these remarks. Here I want only to note that in the end I argue for a theory-practice *methodology*, for resolving the question of how to create a culture-inclusive psychology and that ending means that I will respond through the veil of my limited (culturally different) understanding. In what follows I will do the best I can to address key issues raised by different contributors in this spirit.

Some remarks concerning my orientation to the concept, "activity." It was probably inevitable that my text would be judged in part for what he had to say about the long standing debates concerning rightful ownership of the term, activity, (I restrict myself here to the schools of Rubinshtein on the one hand and Vygotsky, Leontiev, and his followers on the other).

Unfortunately, I do not think my book is an appropriate vehicle for such a discussion. I tried to make clear my own entry into this area of scholarship came about as a result of conducting cross-cultural research. I began this set of studies as an American, positivist, behaviorist, approaching the question of culture in mind as an issue of cause and effect forces, operating serially. I did not approach it as a category in Marxist theory. I approached it as a common sense response to the glaring methodological blindness of relying on pre-set

experimental procedures in social conditions with completely alien modes of interpreting "the task at hand."

It took me many years to get even a minimal grasp of why Luria went to Central Asia and what that trip had to do with work then being conducted at the Institute of Neurosurgery. it was that inquiry which eventually led me back to Vygotsky. As Andrei Vladimirovich notes, Luria did not make much use of the term, deyatel'nost'. Perhaps of political matters were different and people were not killed for working in Academician Levit's institute, he might have continued to focus children's development and not become a neuropsychologist. As a result, the "activity" was given: it was severely circumscribed by the disastrous physical states his patients were in:

What Luria might have lacked in focusing on the level of human activities at a broader level than the confines of a bed and hospital ward, he certainly made up for in what he contributed to our understanding of oposredstvovanie, in particular, the way in which human actions mediated through artifacts such a pieces of paper and pencils, and strategies of memory retrieval in a theatre or trying to piece together what had happened to your life.

Vygotsky used the term "deyatelnost" in a manner I thought I could understand (see Vygotsky, 1960, p. 123-124). But it was Leontiev and Engestrom whose work I drew upon to flesh out my understandings.

I acknowledge Andrei Vladimirovich concerned that I have not drawn on the work of Rubinshtein. I have been aware of Rubinshtein's ideas for many years, relying mostly upon a monograph about his work by T.R. Payne (which I reviewed favorably for the American journal, *Contemporary Psychology*), translations of several of his articles and articles about his work by Brushlinskii and others.<sup>3</sup> Perhaps owing to my lack of sophistication in analytic philosophy,

Abul'khanova-Slavskaya, K. A.

The category of activity in Soviet psychology.

Soviet Psychology, 1982 Sum, v20 (n4):3-36

Rubinshtein, S. L.

Thinking and ways of investigating it.

Journal of Russian & East European Psychology, 1994 Sep-Oct, v32 (n5):63-93

Rubinshtein, S. L.

The principle of creative self-activity: Philosophical foundations of modern pedagogy.

Soviet Psychology, 1989 Mar-Apr, v27 (n2):6-21

Rubinshtein, S. L.

Psychological science and education.

Harvard Educational Review, 1948, v18:158-170.

Brushlinskii. A. V.

Development of the principle of the unity of consciousness and activity in

or perhaps because I began (and to a large extent remain) interested in an approach that will help me to analyze living activities of people in their everyday lives, I found it very difficult to work out the empirical implications of his ideas that I could link to my work. I also failed to understand the academic value of the strong polemical character of exchanges between those who preferred to follow Rubinshtein and those who followed the Vygotsky/Leontiev line. I would be very interested in how using Rubinshtein as a foundation for thinking about mediation and activity would improve the interpretation of the approach I presented or the implementation of that approach to actual problems of learning and development.

So here we come to a discussion topic which I believe could expand this ("as yet) dialogue into broader discussion. I believe that I am effectively using a legitimate version of cultural-historical activity. It seems to me that we have effectively demonstrated the efficacy of our theoretical approach to allow differential diagnosis of reading difficulties. The task, in pursuing this line of work, is discern what it is about the current system of school-going activity. Such knowledge would be required in re-design of the system. It would be extremely useful to have a catalogue of such theoretically driven, empirically valued, research products. And in particular, it would be interesting to see if there were any principled differences that could be attributed to either a Rubinshteinian, or a variety of Vygotsky-Leontiev –derived theories.

Mescheryavko and Zinchenko are absolutely correct in pointing out that an experiment such as the 5thDimension is extremely similar to the approach adopted by V.V. Davydov. That is absolutely correct in so far as we consider such formative experiments in abstract terms. But the differences are also substantial. One such difference derives from the institutional contexts in which we did our work: in school in the formal apparatus, or out of school. When education is moved into the community in this way, we cross the boundaries (in contemporary America) of the official socialization apparatus.

Hence we can get information about such issues as the institutional context of the activities we study. They cannot be taken for granted, given "in the procedure section." This is seen, for example, in the need constantly to keep the context of "the activity" in mind when evaluating "the activity" because activities and their institutional contexts are interwoven, even as they maintain

experimental psychology (the prewar period).

Journal of Russian & East European Psychology, 1993 Mar-Apr, v31 (n2):69-81

Brushlinskii, A. V.

The principle of determinism in the works of S. L. Rubinshtein.

Journal of Russian & East European Psychology, 1993 Mar-Apr, v31 (n2):8292

Brushlinskii, A. V. Activity, action, and mind as process. Soviet Psychology, 1987 Sum, v25 (n4):59-81 their boundaries. In my empirical case, different relations of activity to context serve as the index of the mix of education and play in the activity. This result was not anticipated, because we could not control the conditions that would emerge in the activity-context relationship. But we certainly could explain it in detail and use what was learned strategically.

The difficulty with such work is that it requires a multidisciplinary team to carry out. However, such work is being done. The multidisciplinary teams at the Center for Developmental Work Research in Helsinki provide one excellent example. It would be very interesting to see scholars with different views concerning activity address this issue of larger units of social analysis and examples of ongoing research that implement theortical principles in interesting ways.

### Comments on oposredsvovanie (mediation)

I respond similarly to the various discussions around the concept of opostredsvovanie. This is just a vast topic with so many points of entry and interpretation, that I very much feel the need to ground theoretical discussion in some sort of empirical examples which are themselves made objects or analysis. A case in point concerns various reactions to my use of the term artifact as it relates to opostredstvovanie. I will skip over the translation problems here, but they are considerable, even when we speak of translation only in the narrowest of terms. Other issues seem more prominent.

A number of discussants felt that in my failure to use the term "psychological tools" in my discussion of mediation was a serious failure on my part, and a distortion of Vygotsky's ideas. As a result, according to this line of thinking, there is insufficient emphasis, in the Russian translation, on the idea that in creating and mastering tools, human beings simultaneously transform themselves and acquire the ability to "control themselves from the outside."

This is not a translation issue. Part of the problem here may be that in citing the early ideas of the cultural-historical school concerning mediation, I chose to rely on the three articles that appeared in English when the school was just forming, and not on other early writings where the term was used. When I quote Luria, who wrote, for example, that the tools through which humans mediate their activity with the world "ne tolko radikalno menyaut usloviya evo sushschesvovanie, oni dazhe okazivaiut na nevo samovo obratanoe deistviya v tom smisle, shto porozhdaiut izmeneniya v nyom samom I evo psikhicheskiya sostoyanii" (not only radically changes the conditions of his existence, they even feed back upon him, which produces changes in him and his psychological existence) it is clear that he was referring to the way in which mediation creates psychological tools. My entire discussion and my empirical research (as, for example, the research on reading) presupposes that interpretation. So I see no principled disagreement with my Russian colleagues here.

However, the discussants' emphasis on this point served to remind me of a perhaps more substantial reason why I did not pick a quotation that used the exact term, "psychological tools." This reason relates to Meshcheryakov and Zinchenko's observation that I do not like dichotomous/binary category systems.

Several years ago, my former colleague, Don Norman, who became a convert to the notion of artifact mediation of human thought, wrote a paper in which he distinguished between "cognitive artifacts" and "non-cognitive artifacts" (terms which translate rather naturally into concepts of psychological and non-psychological tools).

This distinction made me uncomfortable, because I was and remain deeply interested in superceding the ideal/material dichotomy with respect to human tools and human human nature. I argued that all tools must, by their nature, are embued with cognition, although the orientation and visibility of their cognitive constituents might be more or less prominent depending upon the goals of the actions in question and the forms of practice which they help to constitute.

It is perhaps true that by substituting an emphasis on joint mediated activity for the concept of psychological tools something may be lost, in particular is emphasis on the intimate link between the emergence of higher psychological functions and new modes of "self" control. But there is also something to be gained by using the more general category of joint mediated activity, where tool and sign are, according to Vygotsky, "sopodchinyonniya ponyatiya" (cosubordinated concepts) (Vygotsky, 1960, p. 124), two dynamic directions. For me, what is gained is a stronger set of intellectual tools for designing artificial activity systems in domains of social concern.

Here again, I would point to the empirical studies as a means of interpreting the intent and effect of the theoretical synopsis in the middle of the book. The small group reading instruction procedure called "voprosschaiushchie chtenie" (question-asking-reading) illustrates the ways in which it is possible to "sript" activities to enable the simultaneous diagnosis of specific learning difficulties and creates an effective medium for their peroposredstvovanie (remediation). These concrete examples (which are presented in greater depth in Griffin et al. 1989 in Russian) clearly illustrate the acquisition of mediational means as parts of functional systems of reading. The quality of self-control and its dynamic relation to other-control come through clearly in this work.

Anti- historical or anti-progressivist?

Let me conclude this already-too-long turn in the discussion by addressing

Meshcheryakov and Zinchenko's unhappiness with what they call my "antidevelopmental and anti historical psychology." I see at least three related difficulties connected with their remarks, all of which make it difficult to establish common ground for further discussion.

First, although they allude to the fact that I have written a textbook on development which has enjoyed great success in the English speaking world (and in which cultural-historical psychology is prominently included), they have not, apparently read it. Had they done so the patent silliness of saying that I am "sklonen otritsat' psikhicheskioe razvitie (osobenno v doshkolnom I shkolnom vozraste), chem priznivat' evo."(inclined to reject psychological development (especially in the preschool and school age). This topic is not extensively discussed in *Cultural Psychology* where only one chapter was devoted to

development and its major focus was on illustrating the role of cultural mediation in ontogenetic development at different ages and in different cultures. I did not set out to write a book about culture in ontogeny.

Second, they invoke the work of Peeter Tulviste to attribute to me the idea that there is no historical development in human thinking. Tulviste, in turn, quotes the conclusion of a passage written in 1970 following a round of cross-cultural research

... cultural differences in cognition reside more in the situations to which particular cognitive processes are applied than in the existence of a process in one cultural group and its absence in another (1971, p. 233)

The book cited by Tulviste contains only one reference to Vygotsky and that is a superficial reference to his experiments with Sakharov on concept formation. Our use of Luria was restricted to information he had passed on to me personally concerning his cross-cultural studies, which he had still not returned to analyze.

In this work we were talking about psychological processes thought of as abilities of the kind then often the topic of cognitive-developmental research, such as the ability to categorize concepts taxonomically, the ability to thinkg logically, the ability to organize information in memory. Our basic conclusion was that all the processes we studied, as we then conceived of them, could be manifested even in specially constructed experimental tasks, *under some conditions*, *but not others*. Especially important was the finding that the closer experimental conditions could be made to approximate events observable in daily life, the more likely that the processes we sought would be observed. We interpreted this to be a reflection of the heterogeneity of culturally organized activities that drew upon and organized the particular processes in question.

Later we specifically studied the dependence of "cognitive consequences of literacy" on the specific activities in which literacy was involved, confirming through the design of experiments modeled on indigenous practices, the specificity of psychological consequences. We sought, often with success, to pinpoint the circumstances in which context-specific achievements become widespread in a society through the spread of their associated activities. In all of this work we documented microgenetic, ontogenetic, and cultural-historical change using a methodology that combined experiment and ethnographic observation.

In the face of such obvious evidence that I take experimental methods and the study of genetic change seriously, and especially in light of the fact that the methodology involved in creating specially designed cultural systems such as the 5thDimension, deliberately mixes three "genetic levels" and multiple methods how could it be reasonable argue that the major thrust of the theoretical framework I offer is anti-historical and anti-experimental?

I don't believe the answer is to be found in Meshcheryakov and Zinchenko's review, and I do not have access to Meshcheryakov's other writings. But I do have access to Zinchenko's recent work, particularly his article on

"developing activity theory" (1996) and his recent book on Shpet which provide some clues to answer.

In seeking to "develop activity theory" Zinchenko was offering his own way of superceding both Vygotsky's cultural historical and Leontiev's explicitly activity theory approaches, while remaining friendly to their underlying impulses. Two features stand out particularly about this work. First, Zinchenko is deeply concerned with the "vertical dimension" of both culture and development. Rather than turning to mundane activities of everyday people as a source of evidence he draws upon philosopher and artists whose work has given birth to some of the most valued products of "20<sup>th</sup> century "high" culture: Mandelstam, Rostropovich, Florenski. Losev. and of course Shpet. Development as superceding progress is everywhere: living motion → Action → self-consciousness → object oriented activity  $\rightarrow$  consciousness  $\rightarrow$  pesonal action  $\rightarrow$  personality are in dialectical interaction with a corresponding hierarchy of mediators (from sign  $\rightarrow$  spirit). From this perspective, the study of culture by anthropologists appears "abstract" and its products little more than jargon. It is a "bezdushniya" (soulless) undertaking. Here history at all its levels, in Hegelian fashion, leads higher and higher toward the goal of fulfilling human being's inherent spiritual potential.

However, having started on my path to understand the thinking process of "uncultured" peoples, and finding thought processes at all levels of Zinchenko's developmental scales, including the spiritual, among them, despite a low level of technology, I do not find the formulations and descriptions of anthropologists any drier or more jargon-filled than that of any academic clan. And, as a psychologist who believes that the strictest test of my dry, jargon-filled theorizing is its ability to guide practice in a way that enhances the development of the children and working people among whom I live, I often find myself struggling to link the intriguing metaphors and phenomenological insights of poets and philosophers who so ably serve Zinchenko's purposes. And, ironically enough in light of the notion that I am anti-experimental, is that Zinchenko provides no hint of how his approach could be empirically tested using experimental methods.

### Concluding remarks

I want to thank my Russian colleagues once again for the generous contribution of their time to reading and commenting on my book. You have confirmed my faith that development is a life long process, and that I have still not reached the end of the road.

I end with a question. Why is it that none of the reviewers commented on the adequacy of my adoption of Luria's "romantic science" as a means of conducting research on culture in mind? Was Luria (and by direct implication, Michael Cole) so mistaken in his attempts to bridge nomothetic and idiographic approaches to psychology through combinining general psychological theory and efforts to understand the development of individuals that the idea does not bear commenting upon? Or has the question become irrlevant, as Russia has moved beyond the interests of the past into a different brave new world?