

The Enduring Contributions of A. R. Luria to World Psychology

Fifth International Luria Memorial Conference
Ekaterinburg, Russia, October 13, 2017

Michael Cole

University of California, San Diego

What Kind of Man was ARL?

- He was an **international** man of science.
 - Journal of Genetic Psychology
 - International Conference at Yale
 - Drew upon German, English, and American contemporaries
 - Organized international expeditions.
 - Published in many languages
 - Organizer of international conferences
 - Tireless world wide correspondent
- He was tenacious champion of LS Vygotsky

How is he seen by the academic community?

- As the “father” of neuro-psychology.
- As a pioneer cross-cultural psychologist
- As a major contributor to theories of mental retardation and methods for remediation
- As the classic expression of romantic science

My Personal Experience of ARL



Luria and Neuropsychology

- ARL's work widely accepted as foundations of current neuro-psychology
- His neuro-psychology is the application of a general theory of human mind, the cultural-historical school of ARL's colleague/mentor, LS Vygotsky.
- Knowledge of earlier research program essential to understanding his neuropsychology
- This argument has been strongly confirmed in the work of Tanya Akhutina, Janna Glozman, Bella Kotik-Friegut and other well known students of ARL

ARL Beyond and Before Neuropsychology

- Knowing other minds - *The Nature of Human Conflicts*
- Cross-cultural research - *Cognitive Development: Its cultural and social foundations*
- Language and mental development- *Speech and the Development of Mental Processes in the Child; The Role of Speech in the Regulation of Normal and Abnormal Behavior*
- Romantic Science - *The Mind of Mnemonist; Man in a Shattered World*

The Nature of Human Conflicts

- How/when can we know what another person is thinking?
- **Indirectly** – as reflected in observable *voluntary*, behavior. (Note: Indirect=mediated)
- “Combined motor method”
 - Subject asked to keep one hand steady while responding to verbal stimuli by squeezing a bulb
 - Steady baseline of stable responding achieved to random words
 - Critical word related to hypothetical event introduced
 - Is there selective disruption of the coordinated response?

Combined Motor Method

- Trivialized as prototype of lie detector test, but implications quite general.
- Example: Diagnosis of reading difficulties in children
- Question-Asking Reading
 - Small group activity organized around script for reading with many roles.
 - Achieve coordination of the activity and watch for selective discoordination of different children
 - Differential diagnosis and remediation.
- Space Bridges

Culture and Development

- Cross-cultural work in Uzbekistan and Khirgizia.
- Period of rapid (forced) modernization; changes in economic activity, schooling.
- Example: Syllogistic reasoning
 - In the far north, where there is snow, all the bears are white
 - Novaya Zemlya is in the far north
 - What color are the bears there?

Reasoning and Cultural-Historical Shift in Thinking (1)

- For most traditional subjects:
 - When posed syllogisms with contents not directly experienced, refusal to answer.
 - When posed syllogisms about familiar contents (cotton growing in another region), very reluctant to draw conclusion from the words alone.
- For people with some level of schooling, logical responses seem obvious.
- Conclusion: Cultural-historical change associated with fundamental shift in thought toward paradigmatic, scientific concepts.

Reasoning and Cultural-Historical Shift in Thinking: Subsequent Fate

- Issues raised are still focus of active research.
 - Basic trend of results widely replicated, but interpretation controversial
 - When framed in terms of fantasy objects, non-literate people and very young children do reason from words alone.
 - Even college students fail to reason logically to syllogisms under a wide variety of conditions
- While underlying mechanisms and generality still debated, principle of cultural-historical change widely accepted

Language and mental development

- the advent of normal speech changes the entire mental life structure of children : ability to plan, to execute plans;
- *the regulatory function of speech is steadily transferred from the impulse side to the analytic system of meaningful connections which are embodied in language.*
- Simultaneously there is shift from the external to the internal speech. Emergence of self control
- This line of research has become foundational to the study of development of executive function, ADHD, educational enrichment programs, etc.

Romantic Science: Resolving the idiographic/nomothetic divide

- Problem of individual versus general laws present in ARL's earliest research.
- Avoid reduction of living reality to abstract schemas: “grey is every theory, evergreen the tree of life”
- Preserve spirit of clinical analysis while using laboratory methods to enable generalization.
- Two case studies, a mnemonist and a severely brain damaged man, illustrate this approach.
- Each person was studied over many years

The Mnemonist

- The mnemonist had a “photographic memory” he could recall number matrices many years later and did not need to write things down.
- This ability, associated with synesthesia, also a problem. Memory highly dependent upon concrete circumstances: *Un-mediated*
- This difference in memory was part of an overall personality; sense of self, difficulty being organized and relating to other people.
- Illustrates systemic, interdependent, nature of human psychological processes.

Man With a Shattered World

- Victim of traumatic brain injury to posterior parieto-occipital regions - fragmented vision and extreme trouble combining sensory impressions into a coherent whole.
- Inability to read, write, locate parts of his own body, recognize his own hometown.
- Using neuro-psychological principles from his theory ARL organized clinical rehabilitation.
- This tradition adopted by Oliver Sachs and is central to my own work in past several decades

Enduring Contributions

- The “Father of Cognitive Neuroscience”
(The interdisciplinary field that investigates interrelations among culture, mind and the brain)
- Model of internationalism in science, even in times of conflict.
- Model of how to combine science and humanism, theory and practice.
- A model we should remember for the benefit of future generations.

Additional Sources

- There is a special web page devoted to the publications about and by Alexander Romanovich including interviews with Bruner, Das, Lubovsky, Sachs, Tulviste, Zinchenko.

<http://luria.ucsd.edu/AudioVideo/index.html>

- Children's Film Space Bridge illustrating use of Luria's ideas about knowing other minds.

<https://www.youtube.com/watch?v=SiF4SwTmVBw>

Для статей М. Коула на русском языке см.

<http://lchc.ucsd.edu/Mike>