

## Activity theory

Key influential individuals affected on cultural-historical activity theory are mentioned to be Karl Marx, Lev Vygotsky, Alexei Leont'ev, Alexander Luria, Evald Il'enkow and Michael Cole. [1] Activity theory as a branch of this science is based on a Russian psychologist, Lev Vygotsky's research work at first part of the 20<sup>th</sup> century. Vygotsky was the founder of Soviet cultural-historical school of psychology. [2] His work concentrated on (mostly) children's learning. Year 1930 he sketched his idea of mediation. The text below as well as Picture 1 forms a straight citation from Vygotsky's later work:

'Every elementary form of behavior presupposes direct reaction to the task set before the organism (which can be expressed with the simple S-R formula). But the structure of sign operation requires an intermediate link between the stimulus and the response. This intermediate link is a second order stimulus (sign) that is drawn into the operation where it fulfills a special function; it creates a new relation between S and R. The term 'drawn into' indicates that an individual must be actively engaged in establishing such a link. The sign also possesses the important characteristic of reverse action (that is, it operates on the individual, not the environment).' [3]

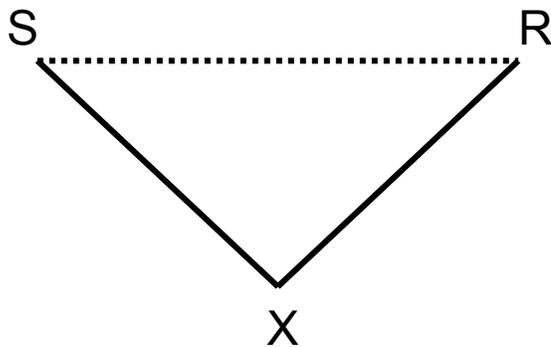


Figure 1 The structure of the mediated act [3]

Yrjö Engeström considered Vygotsky's triangle narrow and inadequate to describe a human action and all factors affecting on it. Engeström diversified Vygotsky's triangle into a more complex form depicted in Picture 2. Remarkable is that, all parts in Engeström's model are connected: 'The model suggests the possibility of analyzing a multitude of relations within the triangular structure of activity. However, the essential task is always to grasp the systemic whole, not just separate connections.' [2] In Engeström's model, 'Subject' refers to an individual or a sub-group of individuals from certain organization. Ones / their activity is directed to solve a problem at hand, which is remarked as 'Object'. To accomplish ones duty an individual (/group of individuals) uses both physical and symbolic instruments described in the triangle. The community

comprises individuals or sub-groups who consider themselves as distinct from other communities. Division of labor refers to both task division and community hierarchy. Rules refer to norms, regulations and conventions in within the activity system. [1]

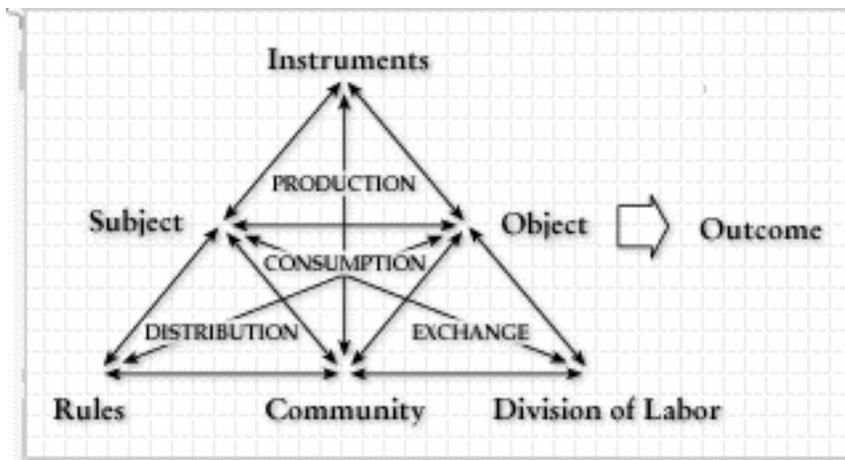


Figure 2 Engeström: The structure of human activity [2]

## Discussion

This kind of approach can be fully utilized when examining an individual as a part of a community as well as one's behavior and communication. However, this is a theoretical framework, not a specific tool for any research or methodology. Activity theory approach is very powerful to depict regulations, expectations and interactions in a community or organization. One very suitable research area is the problem solving process: Individual's use of (variety of physical/non-physical) tools as well methods used to solve the task at hand. Focus on activity and aims, this kind of approach will hold. (Well, this is quite predictable taking into account Vygotsky's studies on children's learning processes.) What activity theory is not recommendable for, could be the non-instrumental part of learning and the learning from the substance, not the community view. Noteworthy is that activity theory is quite tool and interaction oriented. (Everything affects everything.)

When performing an activity theory based project, we could have a few approaches: one would be to define the research problem and depict it into the triangle structure and formulate methodology to gain information needed for the structure to form an understandable model. The other approach would most probably be to use the hierarchy models of activities. (Which is not so much described here due to the limited space.)

## Reference

[2] Engeström, Y., "Learning by expanding An activity-theoretical approach to developmental research", Orienta-Konsultit Oy, Helsinki 1987

[3] Vygotsky, L., S., "Mind in society: The development of higher psychological processes. Cambridge: Harvard University Press. 1978

[1] Helsinki University, Center for Activity Theory and Developmental Work Research  
www-pages: <http://www.edu.helsinki.fi/activity/>