

## Sign mediation: Magic triangle: sign-mediated action and behind.

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### *Open contradiction or a hidden message?*

The model of “sign mediation” is considered as one of the core concepts in the cultural-historical activity theory (CHAT). In Vygotsky’s theory, this “magical triangle” (subject – sign – object), was radically contrasted to classical “S – R” model. For many years this model serves as the point of departure for many theoretical discourses and experimental research programs. In certain sense, the theoretical movement in cultural-historical activity history depends on a certain degree on improvements of “magical triangle”.

Thus, even within the most advanced models in CHAT (Fig 1.), we could easily recognise Vygotsky’s famous triangle (Fig. 2).

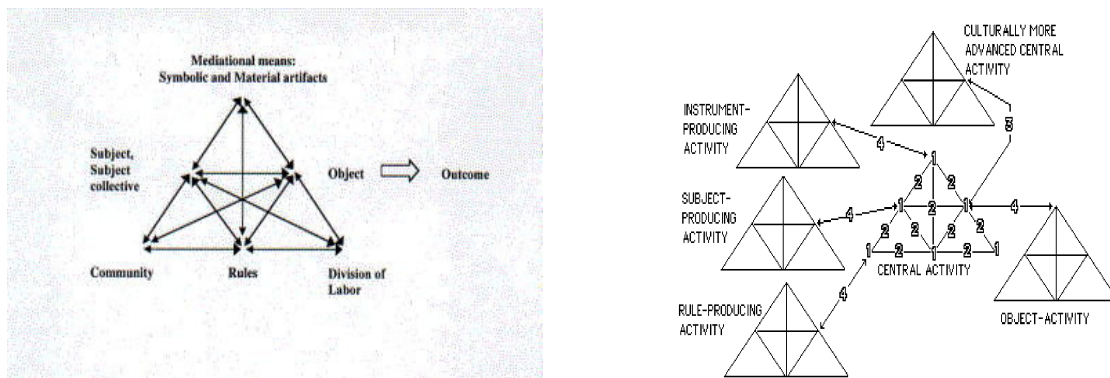


Figure 1. Advanced triangles (from: Engestrom, Y, (1987, 1993, 1999)

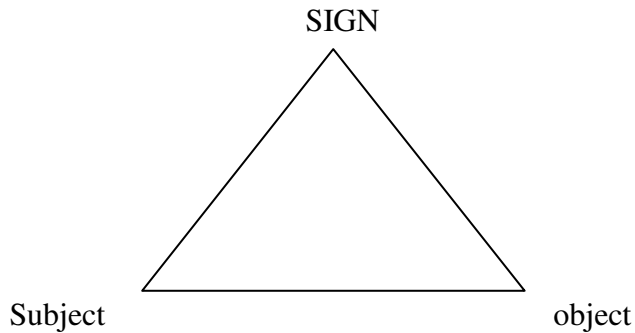


Figure 2. Basic triangle (From Vygotsky, 1931)

Someone could react on this so, that the comparison of Y. Engestrom and Vygotsky cannot convince since their triangles are on different levels; Engestrom describes activity whereas Vygotsky describes an action. My point, however is not to compare or to contrast them: the point is to show that “advanced triangles” are rooted in Vygotsky’s. Moreover, Vygotsky also was speaking about activity (Figure 3).

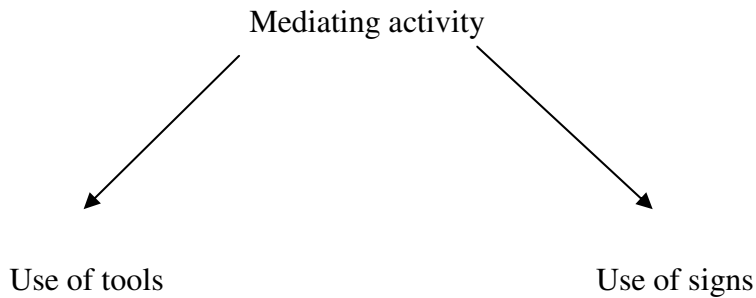


Figure 3. Vygotsky’s basic model (Vygotsky, 1931)

However, in original texts of Vygotsky devoted to this matter we could find the claim that “introducing of sign does not bring any substantial change to the psychological structure of the operation” (Vygotsky, 1931). In such a context, it sounds quite strange or even contradictory. Is it just a contradiction, or there is something hidden behind? The question of this type requires deep survey of Vygotsky’s ideas and theoretical constructions (Veresov, 2006). Such in-depth view might bring a new angle of analysis of the place and role of “sing-mediation triangle” both in Vygotsky’s theory and the cultural-historical theory of activity.

*What is behind?*

If fact, the idea of “sign mediation” and its role in mental development is not originally Vygotskian. Being relatively new in psychology, it was widely and deeply discussed in Russian (and not only Russian) philosophy and cultural studies in the beginning of 20<sup>th</sup> century. Thus, O. Mandelstam (Russian poet and friend of Vygotsky), G. Shpet (pupil of Husserl), Viacheslav Ivanov (one of the fathers of Russian symbolism), P. Florensky, A. Losev and many others wrote extensively on this theme.

Thus, according to Pitirim Sorokin "...the sign environment forms different types of behaviour" (Sorokin, 1920, p.184-185). He wrote particularly that "connection of the individuals with the same symbols connects them to each other". (Ibid, p. 323). In distinguishing between two types of signals in terms of natural and social (signs) Vygotsky was definitely close G. Shpet, who wrote in his book of 1920: "There are two categories of symbols...natural and social" (Shpet, 1990, p. 428). As for "word as social sign issue", Pavel Florensky wrote that the word is amphibian, a mediator between inner and external realities (Florensky, 1990, p. 280).

There are a lot of clear evidences of Vygotsky's acquaintance with those philosophical debates that were violently interrupted by Bolshevik's revolution in 1917. Does it mean that Vygotsky just withdraw brilliant philosophical ideas of his pre-revolutionary contemporaries and adopt them to acute psychological matters? In any case, even brief historical survey show that the ideas of sign mediation and its role in mental development were not new. To understand *what was really new* we should "insert" the model in wider framework of Vygotsky's theoretical search. For Vygotsky, the "sign-mediation" triangle was not something, existing in empty space, it was not a sort of ready-made product, the human action that should be structurally analysed. The "magic triangle" was a certain *result of development, a sort of genetical outcome of certain dynamical process*. The role and place of "sign-mediation" triangle could be understood adequately from looking on it from dynamical and developmental perspective.

#### *Sign mediation triangle from developmental perspective*

As classical physics is based on Newtonian laws, the theory of Vygotsky is based on the law, called "general genetic law of cultural development". It seems to be clear that if we do not understand (or just misunderstand) the general law, we could hardly understand the whole theory, based on this law. We can assume that clear understanding of *general law* might bring a clear light to the place of "sign-mediated operation" in Vygotsky's theoretical construction. Here is the formulation of the general genetic law of cultural development how it was presented in Vygotsky's original text:

"...any function in the child's cultural development appears on stage twice, that is, on two planes. It firstly appears on the social plane and then on a psychological plane. Firstly among people as an inter-psychological category and then within the child as an intra-psychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts and the development of volition." (Vygotsky, 1983, p.145.)

According to Vygotsky every function appears firstly on the social plane, among people. But the crucial point is that the function DOES NOT and cannot appear IN the social relations.

"...every higher mental function, before becoming internal mental function, previously was a social relation between two people". "All mental functions are internalized social relations" (Vygotsky, 1983, p.145 -146).

So, before becoming individual function, it was not in a social relation, it was a social relation itself. Social relation is not the “area”, not the field, and not the “level” where mental function appears, - the social relation itself becomes child’s individual function – herein lies the answer.

If every higher mental function was a social relation between two people, does it mean that every social relation can become a mental function? Definitely not! Nevertheless, in Vygotsky’s formulation we can find clear notion of what type or relation can become a mental function. The point is that to understand it we have to turn to the language of Russian culture of the beginning of 20th century. We have to recall that Vygotsky went to psychology from the area of humanities and culture. He belongs to the generation of “Silver Age of Russian culture”. Theatre, poetry, arts, literature of that period had a language of their own which was almost totally lost after the Revolution.

In our context I mean particularly the word “category” Vygotsky uses in the formulation. What the word “category” actually means? From the times of Aristotle, especially in German classical philosophy, the category is the most abstract, the most general concept (Spirit and Matter are examples of categories). It sounds strange therefore that the mental function appears twice, first as inter-psychological category, and then as intra-psychological category. Maybe it is just a sort of metaphor, which can be easily omitted in translation?

Not at all! On the contrary, the word “category” (which is repeated twice in the formulation of the general law) has definite meaning. In Russian pre-revolutionary theatre’s vocabulary the word category meant “dramatic event, collision of characters on the stage”. Vsevolod Meierhold (famous Russian theatre director) wrote that category is the event, which creates the whole drama (Meierhold, 1920). Sergey Eisenstein, famous film director wrote: “Category is a unit of drama”. Vygotsky was familiar with the language of Russian theatre and arts and had to use the word “category” to emphasize the character of the social relation, which become the individual function. The social relation he means is not an ordinary social relation between the two individuals. This is a social relation that it appears as a category, i. e. as emotionally coloured and experiencing collision, the contradiction between the two people, the dramatical event, a drama between two individuals. Being emotionally and mentally experienced as social drama (on the social plane) it later becomes the individual intra-psychological category.

Probably, the best (and familiar to everybody) example here might be the case of debate between the two people. Imagine (or just remember) that one day you met a friend and had a debate, expressing opposite positions. Dramatical collision in a debate, experienced by the both participants, can lead to a sort of self-reflection. In a course of time, (for example on next morning) one of the participants remembers the event and what he has been done and said. It could happen like «I was wrong saying that, I made a mistake...I should not say such sharp words...I was so aggressive and did not pay enough attention to what he tried to say...How stupid I was yesterday...”

We see here that the individual now experiences the same category intra-psychologically. In this type of internal category all the mental functions of the individual are involved

(memory – “I said something rough”, emotions – “How stupid my behaviour was, what a shame”, thinking – “I have to think it over and never repeat such bad things”, volition – “I must stop it, I will never forget of what I have been done. I promise to myself to be patient...”

Such emotionally experienced collision brings radical changes to the individual’s mind, and therefore it is a sort of act of development of mental functions – the individual becomes different, he becomes higher and above his own behaviour. Without internal drama, an internal category, such kind of mental changes are hardly possible.

Another example is the Buridan’s ass situation, where an ass is forced to act by two different stimuli in equal extent. The ass turns out to be unable to act in this or that way and dies. Vygotsky comments it as follows: A man placed in the situation of Buridan’s ass throws lots.

The third example is from Vygotsky’s experiments with children. The experimental settings were designed in such a manner that in a course of common play of child and adult the task to remember something (words, colours, shapes) was arising. The child was not able to remember all those things. At the same time there were a lot of neutral objects (pieces of paper, cards, ropes and lines) on the desk around. In certain moment the child himself begins to use these objects as tools to remember what is needed.

What is essentially important in all these three examples? In other words, when *the sign* and the “sign-mediated operation” do make sense? It makes sense, when there is a collision (category) behind the operation. Throwing a lot does not make any sense if there is no choice between two equal possibilities. Using a card as a tool to remember something does not make any sense if there is no task to remember and limited mental resources to succeed.

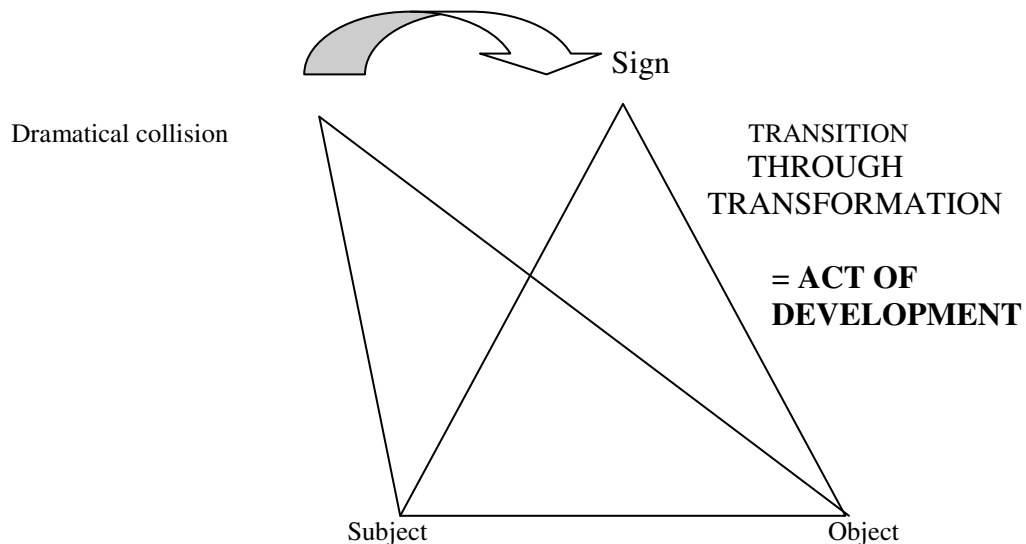


Figure 4. Sign mediation process.

The point is, therefore, not the “sign-mediated operation” itself. The point is the developmental transition from “non-sign operation” to the “sign-mediated operation”. The psychological meaning of the sign opens itself only in the dynamical process of transition from the collision to the solution. *There is nothing in the structure of “magic triangle”, everything is in transformation of the behaviour, everything is in developmental act.*

### *Conclusions*

1. To find the adequate answer on what is the role and place of Vygotsky’s “magic triangle”, we have to look on this from wider theoretical framework. Higher mental functions *appear not in social relations, they appear AS social relation* of a certain type. This is a social relation that it appears as a category, i.e. as emotionally colored and experiencing collision, the contradiction between the two people, the dramatical event, a drama. Being emotionally and mentally experienced as social drama (on the social plane) it later becomes the individual intra-psychological category.

2. From this general law of cultural development follows that “sing-mediated” operations make sense only in a dynamical process of transition: from the very beginning the child should be involved in real social relation as its active participant. The child should experience this relation as dramatical collision, emotionally colored event. Such *an experience and its overcoming* with the use of cultural tools (signs, artifacts, etc.) bring to life the “sign mediated operation”. Any cultural mean should be involved into such experiencing collision, but not given to the child directly.

3. Psychological meaning of the “sign-mediated” operation can be detected not in the “meaning of the sign” and not in the structure of the operation. It reveals itself in the dynamical process of developmental transition from “non-mediated” action to the mediated one.

*Note: the text is available on-line*

<http://nveresov.narod.ru/working.html>