

ON STUDYING OF THE CATEGORY OF THINKING IN PSYCHOLOGY

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ABSTRACT

The article analysed the category of thinking, which is the object of the research in various psychological schools and trends in Western Europe and America, based on the theory of cognition as a process and activity both from theoretical and practical points of view.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

Thinking as a cognitive process was being investigated in the world psychology since the beginning of the XVIII century up to now. But philosophical approach to thinking was studied as the highest stage of cognition in the works by the scholars of the ancient world and it was interpreted in its way. But from the XIX century on the category of thinking had become the subject-matter of pedagogical psychology and psychology of development and it continues fulfilling the mentioned function up to now. Studying the mentioned category in various branches of psychology proves that it is a complex process of cognition and the most important measure of the perfection of an individual.

We would like to dwell upon the theories of thinking, and the essence of the experimental work.

According to the results of studying the materials on the development of psychology an associative trend in psychology, which included majority of cities of the world, appeared in England in the second half of the XVIII century. The founder of the trend was David Yum (1711-1776), and his followers David Hartley (1705-1757), and Joseph Priestley (1733-1804) created psychological teachings as basic laws of psychological phenomena, states, and processes. According David Yum's teachings, complex features, states, phenomena, processes of the brain and their product of self-comprehension or in other words, recognizing of one's "me" consisted of "image units" which has a closely relation with outside interrelations.

David Hartley and Joseph Priestley tried to explain the simplest physiological and neurophysiological associative images which take place in a human being's cerebral hemisphere to be as an identical thing. D.Hartley decided even to call psychology as physics of psychology. And D.Priestley even tried to prove that all cognition processes were the result of the brain vibrations.

The teaching on the role of association in human being's brain activity was widespread all over the world. James Mill (1773-1836), John Stuart Mill (1806-1873), Gerbert Spenser (1820-1903) in Great Britain, T.Ribeau (1820-1916) in France, Teodor Zigen (1862-1950) and Julius Ebbinhouse (1850-1909) in Germany and others made considerable changes in this direction. All the representatives of associative psychology who were working in various

countries of the world explain psychological processes (memory, thinking, speech, dream, will, and etc.) that they appear and even formed of the feelings and images reflected on various stages of cognition. According to the teaching, at first thinking is neither a special power of thinking nor a special psychological power, thirdly, it also moves according to the association laws of images.

As a result of analyzing associative teaching we found out its weak points and prevailing aspects. For instance, in thinking the internal motion of the notions of the image impressions, reasoning, and concluding can be implemented. We think that at this situation the stated motion does not occur as the result of conceiving objects and under the influence of the images imagination, but, on the contrary, it is determined by human being's goals, good wishes, motives and tasks and directly managed by the brain. Individual's thinking is a productive cognition process directed at precise intention.

According to the interpretation of the teaching, associative processes only reflect prior perceived, conceived and achieved things in practice. Associative processes can be defined as a reproductive process which does not have a power of forming new images in human being's brain. Therefore thinking is considered to be a productive process which embodies complex laws and internal complex relations of the objective reality which does not have a power of being reflected by the organs of perception.

It is important that association can be understood as a unit which has a psychological structure. Along with this, associations can be used as a principle of interpretation. If we generalize our opinion we may that associations equate mental things with emotional ones, they ignore to analyze individual and his activity, his intention. Any category of mental process means an unwilling motion of imagination of images.

T. Zigen decided to call notions as "images of association", reasoning as "notions of association", and conclusion as "reasoning of association".

Associations are studied from two aspects: on the one hand, the formation of associations and solving the essence of activation of the formed associations, and on the other, investigating of mental activities from associativism point of view and explaining of their activation and word logic association speed measurement. According to their opinion, as reasoning processes can't be studied experimentally it can be studied the products or results of human being's culture. Therefore as associativism teaching studies human being's mental activity from reproductive point of view it can be called reproductive thinking theory teaching.

A.N.Leontyev, the former Soviet psychologist, despite objections to the general commentary principles of associations, he recognized it unconditionally and considered positively. And L.S.Vygotskiy, along with objecting to the interpretation of notions from associative point of view, studied in connection with the origin, existing and developing the so called similar and contrast associations, its simplest forms of generalization and made some achievements. Later Yu.A.Samarin, P.A.Shevaryov, based on materialistic teaching, developed associations experimentally. In this respect they had considerable achievements both theoretically and practically. A.F.Esaulov who investigated solving a problem, one of the important components of thinking, called associations to be thinking mechanisms and tried to judge objectively.

A behaviorism trend which appeared in the USA at the end of the XIX century and at the beginning of the XX century has its own specific features in the history of psychology. The representatives of the behaviorism trend were against empiric psychology and its introspective method of that period. And they blamed the representatives of empiric psychology in subjectivism. Behaviorists strongly supported the position of studying people's and animals' psychology directly reflected in the things, phenomena, states and realities through the organs of sense and perception.

According to the results of the analysis, the representatives of behaviourism based their ideas on that human beings and animals psychology should investigate expression of external movements (mimics, signs, pantomimes, and speech, etc.) where there should be neither an object nor any aspect except them. By using this approach or interpretation they were only able to show truthfully what the essence of behaviorism was. As a result of it views, attitudes which had various specific features appeared.

G.Watson (1878-1958) and E.Thorandike (1871-1949) are considered to be the founders of behaviorism. After some years K.Leshly (1890-1958) and A.Wase joined them. In between certain period of time the present psychological trend reigned in the world. By the XXI century this trend was subdivided into several independent psychological scientific schools. But they preserved behaviorism in their essence. S-R, i.e. stimulus-reaction which is still serving to be a general formula for all the trends of behaviorism.

E.Thorandike implemented the method used to study rat's psychology to directly investigate human being's psychological world. According to him, human being's behavior is not sum total of one reaction like in the case of animals, but it is formed by means of a group of stimulus system. By stating this the author tried to prove that behavior as the sum total reactions, was a complex system of external situations. Taking it like this equates human being's psychology directly with the sum total.

G.Watson understood thinking in wider sense together with its internal and non verbal (soundless, gestures, mimics, shrugging shoulders, moving the eyebrows) communication and studied dividing it into three forms. He called one of the forms of the speech as gradually intensifying speech skills and in this case reminding poetic or text materials is reflected. According to him, the second form of thinking is to solve a problem by means of a word (trying to remember a poem which was half forgotten) which is not new to a subject. A skill for the author is individually mastered and movement during obtaining experience. If we analyze the theory of thinking, being a very complicated cognitive process's essence will draw nearer to a very simple skill. In this very case recollecting (remembering) the poem was interpreted as thinking brought to a mechanic situation.

In the second half of the XX century the theory of behaviorism appeared and its great representatives D.Miller, Yu.Galanter and K.Pribram did investigations in wide range and had some achievements. These authors decided to call their theory TOTE formula. According to their opinion, behavior was used to appear in the following way: influencing on the system and comparing of some tested situations. In this respect if influence coincides with experience special reactions will be take place in the organism related to comparison, in case tested experience does not coincide with experience reactions directed at formation of searching or targeted reactions.

The representatives of the subjective behaviorism theory aiming at showing behavior structure more exactly and precisely introduced the notions “an image” and “a plan”. According to their interpretation, the image is knowledge, and the past experience and indirect behavior, and the plan is a setting which defines obtaining certain results and production ways. The representatives of the subjunctive behaviorists tried to explain the possibilities of tasks related to thinking on the basis of systematic and heuristic plans. The representatives of the trend the notions “plans” and ‘images’ are strictly separated from the emotional and motivation aspects of knowledge. And their origin, occurring, developing and changing of psychological features remained uncovered and classified incompletely. This teaching in its limited character resembles naturalist behaviorism, i.e. with its reactions of the organism it is very much like traditional behaviorism and it had a progressive importance according to the idea of experimental study from their predecessors. It still has a specific value as a big trend and approach in cognitive psychology up to now.

The Wurtzburg Psychological School appeared in Germany at the beginning of the XX century plays an important role as a psychological trend aimed at studying thinking. To our mind, it will be appropriate to mention the following names as the biggest representatives of the trend such as O.Kulpe (1862-1915), K.Buller (1879-1922), A.Messer (1867-1937), A.Narciss (1874-1946) and others.

They criticized the teaching of associative psychology which played an important role in the history of German psychology and expressed their negative attitudes towards it. They tried to prove experimentally that cognitive processes do not come out mechanically based on the method of self-observation of the tested on the highly developed psychological processes including cognitive processes on mental level dividing them into feelings and thinking by testing. Those above-mentioned scholars used self-observation method in their experiments. And they stated that it was impossible to direct the content and essence of thinking at the object of idea technically. They came to a conclusion that feelings, imaginations and notions included into the components are embraced in this way by reason. The representatives of the present trend, despite thinking is a higher rational level of cognition, call them to be primary phenomenon as feelings. They explained it did not have any link to experiments as thinking had its specific features. According to them, thinking is an internal movement or action. Even if self-observation method was used they should explain the meaning of the following expression: thinking is too complicated and complex but majority prefer concluding very simply. One of them is to elaborate the objective methods of the research. For instance, A.Narciss worked out preliminary methods in the formation of artificial notions in order to provide objectivity of the experiment.

The representatives of the Wurtzburg Psychological School used the notion “setting” aiming at defining the state of the tested while solving a problem. A setting is a complex state of the brain of the managed according to the selection of dynamics and content of thinking to be analyzed. The present approach underlines the analysis of human being’s activities. For instance, a determined influence, activeness aimed at the object searched a problem solving. If to express it in other way, they brought the issue related to managing mental processes. But the representatives of the trend explained that these states are realized under the influence of unknown and complex “me”.

They interpreted thinking as primary source of information as they were related to thinking attitudes. They recognized self-observation as a basic method in researching thinking. The representatives of the trend were able to show that thinking is an independent cognitive

activity but in practice they separated it from speech and emotional images. Under the influence of the Wutzburg Psychological School researched the issues of thinking and speech, thinking and emotional images, determination of thinking, its specific feature in selection and means of solving problems in succession.

Psychologist O.Selz accepted thinking as intellection movement techniques and managed to describe its essence. The author put a task before to observe certain components of thinking activity processes and formation of components of thinking, to show stages or levels of intellectual activity, and lessening or eliminating its productive and reproductive forms. While studying of a problem solving, he paid a special attention to the stages of “the issues which had general points”. He divided the relation between elements and objects into two groups. As a result of this approach a set of problems appear. O.Selz determined that the incompleteness causes problematic state and he defined its essence. He stressed that it was related to complex components of incompleteness or relations of the existing aspects. As the origin of the suggested by the author “the issues which had general points”, it forms a vivid algorithmic scheme the searched indefiniteness is described by its place in the set. O. Selz introduced the term “anticipation’ into psychology and he explained that unknown searched is always given to it.

O. Selz was the first to research thinking as a high level of cognition based on the expressed opinions, analysis and interpretations using the methods of experimental system. Secondly, intellectual settings and their components were defined in detail both theoretically and practically. Thirdly, he was a scholar who approached to methods, methodics and their modification, invariants in succession efficiently. Psychologists of the world evaluated his service objectively and tried to spread his ideas and stated some disputable points in his works.

In the end of the XIX and early XX century the trend Gestalt psychology appeared in Germany and it still preserves its scientific value. The great representatives of this trend included H/Erenfels (1859-1932), V.Keler (1887-1967), K.Kofka (1838-1941) and others. The representatives of the Gestalt psychology criticized the ideas of the associative school representatives on simple states which come out of all psychological processes based on Gestalt psychology. According to them, the elements consisting of a complex unity which comprise the content of any psychological phenomenon, on the hand, is wide in its range, on the other, from the content point of view is different. The following ideas with axiomatic features will contribute to defining the present teaching: the combination of separate parts or elements will not be able to present the content of the whole structure. The central theory of the trend it does not consist of a separate sense or elements but it consists of the whole configuration, form or gestalt. The main object of their experimental research is intellect and later based on some conclusions made to use it to study thinking.

The second theory of author’s teaching is called “periods of intellect” He divides the periods of intellectual development into the following stages:

1. Sense-motor intellect (from birth to 2 years of old);
2. Pre-setting period of developing of the intellect (ages from 2 to 6);
- 3.The period of concrete settings (ages 7-8 up to 11-12);
4. Formal settings period.

According to J.Piaget, developing of intellect starts earlier or prior to speech of a child. The genesis of the intellect reflected in child’s early movements and acts. Later as a result of

movements directed at exact actions important possibilities of studying the roots of the intellect appears. In this respect it is important to notice the principles of interpersonal relations, unity of actions and words start.

J.Pieget's intellectual teaching is of great importance for psychology. An objective "clinic" method is used in the teaching and genetic root of intellect was revealed. The author was able to prove specific features between intellect and objects, and the change and improvement of the subject during the intellectual activity both empirically, theoretically and practically.

In conclusion we may say that the category of thinking was the object of research in various psychological schools and trends in the West Europe and the USA. Based on the theory of cognition thinking as a process and as an activity was studied by several representatives of the conception both theoretically and practically. Various approaches to thinking facilitated revealing its essence. The rules, mechanisms and phenomena invented by the scientific schools are of great importance by now.

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