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Obstacles and Errors in the Appropriation of the Psychological Language

Abstract: The study discusses the difficulties which emerge during the appropriation of psychological language, difficulties considered as *cognitive obstacles*. Most of the time, the cognitive obstacles are born from the way the teacher put the student in touch with science, relying on a spontaneous epistemology, indifferent to the demands of science conceptualization and problematization. Relating to G. Bachelard’s outlook regarding the obstacles which are constitutive to the scientific knowledge approach and which he calls *epistemological obstacles*, we analyzed several categories of obstacles which we find during the appropriation of psychological language: obstacles generated by the difference between the common meaning and the scientific meaning of the psychological concepts, obstacles generated by the difference between the feeling and knowing the psychological facts, obstacles generated by the difference between stereotype and objective truth.

Keywords: cognitive obstacle, epistemological obstacle, ontogenetic obstacle, didactic obstacle, common knowledge, scientific knowledge

1. Introduction

Psychology enjoys – as of late, in Romania as well – a greater and greater interest from the common people and, in particular, from the youth. The fascination which the psychology exerts today – with all its collateral aspects which defy normality and draw curiosity – could be explained, in a first approximation, by the special situation which this field enjoys in the sphere of the cognitive manifestation of the human personality: psychology represents a permanent need of man not just in a theoretical sense, purely cognitive and explicative, but also in a practical sense, as a need to know himself and the others, to improve himself and, if possible, the others. Secondly, the attraction for the psychological

approach is determined, without doubt, by the almost unlimited expectations which the individual has with respect to this approach: he expects from psychology the “key” for solving all the personal problems he is confronted with, regardless if they are or they are not contingent with the field of psychology. The treatment of the “diseases” of the body or the soul, the education of children, the overcoming of love hardships or even the understanding of the political and ideological options and actions represent just as many imperatives which make the individual to value and resort to psychology as the ultimate, saving solution, on the meandering road of life! Not just once there is this feeling that one asks and hopes to obtain from the psychological approach even more than the latter is capable of giving.

The high school student gets close to psychology with the same fears and hopes, with the same trust, but also with the same despair as the man on the street. Fears, because it anticipates analyses, explorations and surveys within the depths of the human soul, which could certainly reveal unsuspected things about his own person and about others, hope because he expects, in a way, the confirmation of his own intuitions and observations appearing from the practice of day-to-day human relationships, trust because it is, perhaps, for the first time when his own feelings are placed under the jurisdiction of a scientific approach dominated by an adequate methodology and by interpretations in agreement with the demands of a scientific approach, despair because, in his own mind, he is convinced that no one and nothing can enter his self-contained soul, last of all the teacher with whom he is in a relationship of authority, often unpleasant by some of its consequences. This is why, wishing to keep the interest for psychology alive, the teacher must possess, as well, a good knowledge of the “naive psychology”, but also of the scientific psychology, to be a psychologist himself, but also a researcher, a practitioner and a theorist.

The knowledge and the understanding of psychology by students means, before any other things, *the appropriation of a language*, of a certain type of discourse which should rely on facts, but, at the same time, should point out the relationships between the psychological facts, to interpret these facts and grant them meanings, to provide explanations, to make predictions regarding some behaviors. These requirements are not easily employed by the common perception. For this reason we cannot avoid noticing that the road which the student must undertake together with his teacher in order to achieve the mastery of the psychological

language, of the conceptual aggregate, of the explicative and predictive capacity in this field is not at all a straight and unhindered road.

2. The concept of cognitive obstacle. The typology of cognitive obstacles

The cognitive obstacle is a barrier, a theoretical or practical difficulty, a gap in knowledge which has to be filled, overcome, solved. But we must not give substance to the obstacle. The cognitive obstacle is not outside the thought, it does not have an independent existence, outside the context and the person which perceives that cognitive hindrance. An obstacle is defined depending on the knowledge which a person sets in motion in a specific situation in order to solve a problem. Confronting the problematic situation with the subject's possibilities of resolution can lead to difficulties in finding the adequate solutions and, thus, to the obstacle's emergence. One and the same problematic situation could be depicted in a different manner by different persons, which points out the subjective nature of the obstacle.

An obstacle manifests itself through errors, but these errors are not by chance, they have an origin, a common source, which can be the manner of knowing or an old outlook, coherent, which worked in different situations, even though it is not correct. One and the same information can possess different functions depending on the context which it was brought up in. In a certain context, it can work as a functional tool, and in other context it can become an obstacle which blocks the understanding and the assimilation of new information. These obstacles show up repeatedly and persistently, they do not fade completely even after the subject became aware of them and rejected them as flawed patterns. Because of this, the access to a superior knowledge does not guarantee the disappearance of the obstacles and what we can do is to include them in the new knowledge. As Michel Fabre notes:

“We have all the interest to distinguish the obstacle generating normal errors, which characterizes the compulsory approaches of the genesis of the science, from the psychological blockings which result from certain singularities of the history of the subject or from difficulties which depend on the complexity of the task and on the weaknesses of the knowledge. It is thus a normal, encompassing, enduring and recurrent error the one which signals the obstacle”. (Fabre 1999, 169).

An information which manifests itself as an obstacle is always the outcome of an interaction between the student and the situation where that information shows up. Guy Brousseau (1976, 1989) studied the manifestation of these obstacles in the didactic of mathematics and proposed a typology of obstacles which was then employed in the didactics of other sciences as well. In didactic, the knowledge of the origins of obstacles is essential, because overcoming or avoiding them depends on these sources which give them birth.

According to Brousseau (1976, 107-108), the obstacles encountered during the process of teaching and learning are of three kinds:

✓ *Ontogenetic obstacles* – are those which result from the particularities of the subject being, at a certain stage of his cognitive development; the subject gains knowledge adequate for the means and purposes of his age. These obstacles fade away on their own over the course of the development.

✓ *Didactic obstacles* which are specific to the choices made by the teacher during the teaching process and are the consequences of a certain pedagogical ideology; the educational system, too, by the way it organizes the curriculum, can be responsible for the emergence of this sort of obstacles. Making the curriculum a route full of gratuitous obstacles is, of course, a mistake. These obstacles can and should be avoided.

✓ *Epistemological obstacles* are constitutive parts of the approach of scientific knowledge, we can find them in the history of the concepts particular for each science and many of them are unavoidable. This does not mean we must amplify their effect, or that we must reproduce in a school context the historical circumstances in which they have been defeated. What we can do is to be aware of them and overcome them by a different comprehension. An epistemological obstacle, the way it was theorized by G. Bachelard (1972), makes the science or, at least, the scientific spirit, move forward.

3. The concept of epistemological obstacle at G. Bachelard

An analysis of the scientific thought and of the progress of knowledge by overcoming the obstacles is undertaken by Gaston

Bachelard. In his work *La formation de l'esprit scientifique* (1972), Bachelard groups under the name of *epistemological obstacles* the limits which restrain the previous knowledge and which must be overcome and replaced by another form of knowledge. This means that what we already know prevents us from discovering something new. Any truly new knowledge is preceded by an "epistemological break", break which separates the natural experience, specific to each of us, from the scientific experience, which is unavailable for everyone. All the "pre-knowledge" must be negated in order to reach a new knowledge.

An epistemological knowledge is engraved on the unquestioned knowledge, that which was not yet questioned and which has not passed the test of the critical thinking. The intellectual habits hinder the research, because, as M. Bergson said (1934, *apud* Bachelard 1972, 15): "Our spirit possesses an irresistible tendency to regard as more clear the idea which he uses most often". (Bergson 1934, 231)

The idea gains this way an intrinsically abusive clarity. By employing them, the ideas gain an undeserved value. The obstacle is born when the previous knowledge is put into question by a new questioning, specific to the thinking.

Without a doubt, it is necessary to be aware of these "epistemological obstacles", because only this way one could find the means to overcome them. Among the epistemological obstacles, Bachelard includes: the obstacle of the first experience, the animist obstacle, the substantialist obstacle, the obstacle of generality, the obstacle of the unconscious valorizations.

The notion of *epistemological obstacle* is studied by Gaston Bachelard within the historical development of the scientific knowledge and within the practice of education. In the field of education – says Bachelard –, the notion of epistemological obstacle is not acknowledged:

„I have often been struck by the fact that the professors of sciences, more than others, do not comprehend that what they teach is not understood. They think that the scientific reasoning begins like a lesson, that they can make a demonstration to be understood by repeating it point by point. They have not pondered that the teenager comes to the physics class possessing already formed empirical knowledge; that is why it is not about gaining an experimental culture, but about changing it, about overcoming the obstacles accumulated from the daily life". (Bachelard 1972, 18).

The most generously illustrated obstacle and the one most seriously criticized by Bachelard is the *first experience*. It appears as a richness of images, it is picturesque, real, natural; the only thing one has to do is to describe it and be in wonder (Bachelard 1972, 19). The first experience is a mixture of objective and subjective elements. It would be delusional to build the learning process without taking into account the previous knowledge of the students, knowledge more or less correct, often contaminated by the imagination, affectivity, environment and so on. Another delusion would be to believe that the new knowledge would erase and replace the previous one. In reality, the knowledge gained in school overlaps the previous one, which would allow itself, perhaps, to be altered, but will remain, most often, underlying and will re-emerge. For this reason, before specifying the formulation level of a concept, we must take an account of the current representations of the students regarding the different problems and spot the obstacles.

The epistemological obstacles can be defined also by their features, synthesized by Michel Fabre (1995) and J.-P. Astolfi (2004, 38-44):

✓ *Interiority of the obstacle.* At the level of the common language, the term “obstacle” points out towards something from the outside, which is ahead, which obstructs the road. When we bring up the issue of the scientific knowledge in terms of obstacles, we must imagine though some hurdles from inside which appear as some functional necessities in the motion of the knowledge, which resides in the thought itself, in words, in the daily experience, in subconscious. Internalizing it, the obstacle becomes an inertial factor, a factor of stagnation or even regress.

✓ *Easiness of the obstacle.* Before being a difficulty, the obstacle is first and foremost an “easiness which the spirits grants to itself”, an intellectual comfort. Facing a problem, the common sense resorts to intuitive or naive manners of seeing things. The common sense is built upon the principle of pleasure: it wants everything immediately, while science demands a lot of patience. But, as Bachelard claims, building a rational thought requires a catharsis, a true mental conversion: “A psycho-analysis of objective knowledge must carefully examine all the seductions of the easiness” (Bachelard 1972, 55).

✓ *The positivity of the obstacle.* Many times, the obstacle is associated with ignorance, with lack of information, with a vacuum of knowledge. In truth, though, the obstacle can come from “too much” available knowledge, which is already there, in the pre-scientific culture and which hampers the construction of new knowledge. The obstacle is like a “weave of constructed errors, positive, tenacious and united” (Fabre 1995, 80) which resist rejection. The obstacle is a positive knowledge, which, in other circumstances, could very well work as an instrument.

✓ *The ambiguity of the obstacle.* The obstacle belongs to our mental structure and possesses a double dimension: that of a necessary tool and that of a potential source of errors. Bachelard emphasized a lot this *instrument-obstacle* dialectic. During a learning situation, one must start from the representations of the students about the knowledge which must be conveyed and he must identify the obstacles which must be overcome. During this stage, the obstacle is a source of error and less of an instrument. It is the necessary break between the common sense and the scientific spirit. When the scientific spirit took shape, the worth of the previous knowledge is that of a stage in the development of knowledge.

✓ *The polymorphism of the obstacle.* An obstacle possesses multiple dimensions. It does not limit itself to the field of reason, but it branches into the spheres of affections, emotions, myths.

✓ *The recursion of the obstacle.* One becomes aware and recognizes an obstacle only after it has been overcome. The recognition of the obstacle requires a retrospective look, a meta-cognitive return to the learning which has occurred, in order to identify the errors.

4. The epistemological obstacle in psychological knowledge

The hurdles encountered by the students in order to learn the psychological language are seldom defined as *obstacles*. Most of the time, one speaks of gaps in knowledge, of the absence of a previous training, of blunders, aptitude problems, difficulty level of the information. When the term of obstacle shows up, it is usually associated with hurdles generated by the nature of the task set by the teacher and less with obstacles which

come from the nature of the science and the way the student approaches the process of scientific knowledge. It is possible though for some of the cognitive obstacles to emerge from the way the teacher puts the student in touch with the science, based on a spontaneous epistemology, irrespective of the demands of the conceptualization and problematization of the science. The consequence of this spontaneous epistemology of the teacher is, according to Michel Fabre:

„a problematological indifference which has as corollary a propositional outlook of knowledge, an overvaluing of error at the expense of sense, an outlook of truth as adequacy to reality and not as a product of truth” (Fabre 2009, 275).

The formed knowledge does nothing else but cancels the question, impedes the curiosity, generates the dogmatic acceptance of science.

When we devise for the student the sequences of training by which he must gain new knowledge, we should relate to the template of scientific knowledge. Each science studies a class or a category of facts and phenomena which constitute its scientific object. Classifications, descriptive and conceptual models, explicative hypotheses and methods of investigation which are supposed to lead to the gradual mastery of facts emerge from the study of these phenomena. The sciences begin by describing and classifying before discovering laws and putting forward explicative models. As Vasile Pavelcu specified:

„the progress of knowledge consists of continuous explanation, of the motion from intuitive to discursive, from undifferentiated to differentiated. Explanation is thus a progressive process of analysis. To understand better means to know what a thing or a phenomenon is, how it occurred, why it happened etc, namely is the growing capacity to place the object of our thinking within systems and frameworks of relations and references as diverse as possible” (Pavelcu 1972, 167).

It is certainly necessary for the teacher to think about the fact that the teenager comes to the psychology classes with some empirical knowledge about the phenomena of the mental life, resulted either from the reading of a literature of psychological nature, from watching some movies or from the daily observation of his peers. For the correct understanding of the psychic phenomena and the adequate appropriation of the psychological language, the teacher, on one hand, must rely on this naive psychology in order to clarify the contents and the logic of scientific

psychology, in order to get the abstract contents of psychology closer to the thought of the common man, and, on the other hand, must act to correct the errors, to separate the subjective and random contents from the objective, exact and verifiable contents.

Thus, in case of the assimilation of psychological knowledge, we cannot speak of an “epistemological break” to the same effect that Bachelard theorized this concept, because there is a certain continuity between the common knowledge and the scientific knowledge in psychology. Intuition, the naive knowledge, the daily psychology can help us a lot in practice and in psychological research, but they constitute just the necessary premise which the scientific psychology shall be built upon. We must take into account that the thought never moves on its own towards objectivity. The scientific spirit is formed in time, by detaching itself from the common sense. It is necessary – Bachelard warns us – to disquiet the reason of the student, to disrupt his habits, to make him give up on his own intellectuality, on his intimate intuitions and his favorite images.

(a) Obstacles generated by the difference between the common meaning and the scientific meaning of the psychological concepts

In the picking up of the psychological language, different types of errors can appear, owed, first and foremost, to the fact that the psychology employs terms from the common language (for instance, attention, memory, imagination, sensation, perception or terms referring to feelings, such as love, hatred, jealousy, etc), which often possess a different meaning than that encountered in the daily usage. If between the common meaning of the terms and their psychological meaning there are significant discrepancies, this generates confusion, ambiguities, improper use of the terms.

The abandonment of the knowledge which has its source in the common sense is a difficult thing. This naive, daily psychology is called by Traian Herseni “folk psychology”:

„such as there are a folk astronomy, a folk botanic or folk medicine, there is also a folk psychology, meaning a sum of information, opinions, psychological interpretations created or assimilated by the people, developed earlier than the scientific knowledge, and, after its emergence, preserved at its side, as an empirical cognitive preoccupation, mostly practical, born or spread through human contacts amongst themselves,

from the need to adapt themselves one to each other within the different communities or even just because of the natural curiosity to know each other and to translate each other, eventually to know and understand themselves” (Herseni 1980, 23).

“Folk psychology” is mirrored both in the language, and folklore, where there are many proverbs, sayings, expressions regarding the disposition of man and his mental life, such as: “where there is no brain, pity the feet”, “you have a head, why would you need a reason”, “his heart shrank”, “those alike join together”, “the eyes are the mirror of the soul”, etc. These expressions endured until today and other joined them, which proves that “folk psychology” is still quite active. This psychology, present in the culture of every human being, is based on intuition, named by H. Gruble a “reasoning with unconscious premises”. The role of the intuition in thought and creation is well-known, because it is always present in the act of the understanding of the reactions of those around you and in the act of providing an answer adequate for each situation. However, intuition remains still inaccurate; it cannot be accompanied by rational arguments and lacks system and coherence (Cosmovici 1996, 206-219).

The daily psychology accredits a common meaning of the psychological terms, which can help us orientate ourselves in the relationships with our peers. But when we pursue the assimilation of the scientific meaning of the terms, the first step which must be taken is this *separation of the common meaning from the scientific meaning*. The empirical concepts are characterized by the omission of the essential from their content and they include many subjective and random elements, based on impression. Thus, the possibility of errors.

Having in mind the fact that the empirical notions represent the starting point for the formation of the scientific notions and that they can sometimes have a positive, but also a negative role in the shaping of the latter, it is necessary for them to be known in detail, for the purpose of a differentiated use in the education process. The concrete-intuitive support of the empirical notions can be used to capitalize on it, or to restructure, reconsider and transform it in scientific knowledge. Considering the knowledge and the empirical notions of the students either in order to capitalize on them, or to restructure their contents allows for the generalizing activity of the thought, accomplished up to a certain moment, not to be lost, but to be integrated together with its results, as a necessary premise, in the new intellectual activity which is next to take place (Zlate 1973).

A first example in this regard is provided by the concept of *personality*. According to the common sense, personality is equated with the “exceptional individual”, with the socially or culturally creative person. Expressions such as “he does not have personality”, “he is full of personality” are, as a matter of fact, quite widespread when it is taken into account just the “external effect”, the impression which some people make on others or the power to influence people. Thus, the folk outlook on personality refers to the aggregate of features which are socially appealing and efficient. This outlook mixes personality with reputation (Allport 1991, 34-36).

In psychology, the problematic of personality has an extremely important place. It was and still is the object of many studies, which, obviously, caused the proliferation of tens of definitions of personality, whose enunciation would be disconcerting and discouraging for the student. The definition which Allport puts forward, for instance, according to which “personality is the dynamic organization within the individual of those psycho-physical systems which bring about the reason and its specific behavior”, one of the most employed definitions of personality, treats the personality as a unit which possesses a certain internal structure, but neglects the psycho-social determination of personality. This has as consequence a certain hindering of the relationships between the outside and the inside, between intra-personal and inter-personal, between person and situation in the understanding of personality.

Norbert Sillamy defines the personality as “the most stable element of a person’s behavior, which shows his character and distinguishes him from another person. Each human being is, at the same time, similar to the other members of the group and different from them by the unique imprint of his feelings” (Sillamy 1996, 231), definition which stresses the individuality and the originality as cores of the personality, but also the existence of some typical personality features which are proper to all human beings, in all places and all times.

For the correct assimilation of this concept, the high school teacher must make the student understand the fact that anyone possesses personality and that, from a psychological point of view, the personality is a concept which includes “the entire system of attributes, structures and values which a person possesses”. An analysis of the general personality features, the mingling with particularizations, with exemplifications which emphasize not only what is common, but also what is different from an individual to another will make the student try to know himself

better, to compare himself with others, to aim for achievable goals, but will also make him try to surpass himself.

Another concept which in the daily language has different meanings is that of *intelligence*. When using this term, different persons will link it to different behaviors and traits. In daily life, “a person is called intelligent if he displays verbal ability, if he answers promptly and adequately to questions, if he solves puzzles easily or handles successfully a difficult discussion; another, if he can easily spot and fix a car breakdown, a broken clock, etc” (Pavelcu 1972, 272-273).

In other words, at an intuitive level, the intelligent man is the one capable to solve with greater ease than most people the problems showing up in the daily life. According to school experience, intelligence would designate the adaptation degree of the students to the demands of school activity; it is thus an instrument of school success. Sometimes, one distinguishes between theoretical and practical intelligence. There are men capable of solving difficult theoretical problems, but who become extremely confused when they have to solve relatively simple practical problems. And the opposite.

We must admit that there is a multitude of folk views regarding intelligence, just as there is such at the level of scholarly views. The psychology manual takes into account this diversity of the definitions of intelligence and, consequently, provides multiple opinions and contributions on intelligence: J. Piaget, Ch. Spearman, L.L. Thurstone, H. Gardner. For the high school student, the definition provided by J. Piaget for intelligence, as the superior form of optimal and efficient adaptation to new situations by restructuring the experimental data, can be considered as a starting point in understanding the complex phenomenon of intelligence. Further on, though, from a general, abstract definition of intelligence one must move to operational definitions, a thing which can be achieved by actual, practical analysis and even by applying some intelligence tests.

When researching the psychic life, there can be many situations when the scientific effort to specify the psychological language must start from the previous knowledge of the students. Sometimes, the “conceptual schematics of the common meaning” can be quite close to the scientific meaning of the psychological terms and, in that case, the construction of the psychological language would take place “from bottom to top”, by transfiguring the common meaning into concepts, laws, principles, theories: “the move from intuition to discursive knowledge is the process of transformation of inarticulate, undifferentiated knowledge, often

practical and non-verbal, into an articulate, differentiated, verbal and logical knowledge. The former could be called implicit with regard to the latter, explicit, logical or rational” (Pavelcu 1972, 155).

The differences between the common meaning and science are summed up by Kerlinger in the next features (Bîrzea 1995, 35):

(a) both the scientific approach, and the common meaning employ “conceptual schematics”, respectively causal associations with limited value. Unlike in the common meaning, in science these limited explanations are constantly revised;

(b) in science, any attempt at generalization goes first through the stage of provisional truth, of hypothesis. In the common meaning, this precaution does not exist: false certainties are preferred to relative certainties;

(c) in science, only what is verifiable is true. In common meaning, it is true what each believes to be true at a certain moment and in a certain situation and context;

(d) in science, knowledge is settled through laws (which grants it a durable character), while in the common meaning knowledge is expressed under the immediate and fluctuating form of the opinions.

(b) Obstacles generated by the difference between the feel and the knowledge of the psychological facts

Errors can also be generated by the fact that the psychic phenomenon is directly experienced by each of us, but it is recognized indirectly. Our permanent coexistence with the scientific facts which constitute objects of investigation for the psychological approach and with the elements which the specific language of this branch of science “works” with, is not left without consequences, both with regard to knowledge, and, especially, with regard to reception of language. The fact that each person experiences emotions daily, focuses his attention upon some objects, imagines and plans activities, thus he is made aware of the psychic phenomena through his own experience and his own feeling, makes some people believe that psychology is a simple and easy science which, eventually, they could also contribute to by mere self-observation. Reality is completely different, and delusion follows us here at every step. The psychic phenomena are extremely complex (perhaps the most complex among the facts of scientific research), and, by self-observation,

man becomes aware only of his own subjective experience. Or, subjective experience will never be able to become sufficient ground to determine the statements with worth of law. But the scientific approach of psychology aims to determine the laws of the psychic activity and the explanation of “behaviors” on the basis of those laws. Lucian Blaga noticed that the psychic phenomena appear as “feelings”, but the knowledge of these phenomena was not identical with perceiving them. As soon as one tries to assimilate the psychic phenomenon through knowledge, one also starts to move away from it (Blaga 1977, 186-189).

(c) Obstacles generated by the difference between stereotype and objective truth

Not just a few times we can see that we find in the general opinion incorrect views from a psychological perspective, formed on the basis of subjective impressions, observations and assessments. The psychology of the common sense is deeply marked by preconceived ideas, by stereotypes which are employed as objective truths. The cliché or the prejudice comes from the collective mindset, it is assumed by the individual from the group which he belongs to and it is expressed through most diverse representations and personal assessments.

The difficulty which the teacher perceives when explaining the psychological concepts consists, first and foremost, of the fact that these opinions can possess a grain of truth, which determined the psychologist H. Kelley to admit the fact that a certain level of the psychological knowledge is indeed specific to the common sense (it is about observations and conclusions regarding the aspects of human behavior which can be directly noticed). The mixture of truth and error which we find in stereotypes and clichés becomes an obstacle for the assimilation of the psychological language when, for the formation of some notions, the teacher resorts to a series of examples, of exact facts, in order to come later – by analysis, synthesis and generalization – to the definition of the notion.

For instance, among the most frequent stereotypical images there are those referring to the relationship between facial expressions and personality traits. We encounter, in practice, quite a lot of people who accept the idea that intelligence or non-intelligence, and other traits, are engraved in the facial expression of a person, in his sight, many times in the way he dresses. It is thus postulated – rather tacitly – a correlation between the somatic, bodily type and the psychic features. The psycho-

morphologic positions can be easily found in the common sense. Even Kretschmer's typology starts from these positions; they have a certain predictive value.

The scientist distinguishes though between the mere correlation and the process of causal determination. It is true that not just once the face constitutes an "index of psychic values", but from the assessment of the mimic expression, of the face one can gather information first and foremost about the emotional state of the person, about some general psychic states and not immediate data about the intelligence itself or about the character traits. The common sense is ready any time to establish links between the physical and the psychic aspects, relying on more or less random coincidences encountered through experience (Radu 1994, 19). Also, the influence of the mentality of the surrounding social environment creates ethnical prejudices, in naive psychology (strong, for instance, with respect to the Romany ethnicity).

F. Bacon stated that, in order to gain true knowledge, man must be rid of the prejudices and the false notions which rule him at every step:

„The idols and false notions – Bacon noticed – which have taken control of the man's intellect and gained deep roots within him not only that they flooded the spirits of men to such extent that the truth can barely get through, but even if it manages and it is allowed to enter, they will come back and disrupt the renewal of the sciences, unless men take measures against them and defend themselves as much as possible” (Bacon 1957, 41).

The adequate knowledge of psychic phenomena and the assimilation of the suitable concepts by the students cannot mean a collection of abstract and unusable definitions. We will assess that the students have taken hold of this knowledge if they can adequately use it in the act of self-knowledge or in that of knowing the other, if they can recognize a psychic phenomenon in particular cases, if they can adequately react to the requests expressed in a psychological language, if they can work out psychological expositions or characterizations.

5. Conclusions

In agreement with G. Bachelard, we say that, for the comprehension of a psychological concept, a true intellectual and emotional catharsis is needed. A change of the training methods is required in this context. A model close to what Bachelard suggests to be an epistemological approach of the assimilation of concepts is the *constructivist training*.

Constructivism is, before anything else, a theory of subject, which, trying to optimize the exchanges with the environment, builds himself up by integrating both the outcomes, and the mechanisms of his thinking. The main feature of constructivism is *the approach focused on the one who learns*, respectively on his activity of building knowledge. The construction of knowledge means that the subject searches for information, selects, treats information critically, reformulates, analyzes, compares, classifies, evaluates, expresses hypotheses, tests them, tries experiments, draws conclusions, generalizes. Constructivism opposes traditional education which tries to depict all knowledge as some social conventions which then must be memorized by the student, in their final state. We communicate with the students not to sell them ideas, but to guide their constructive efforts. The teacher does not have the task to dictate the correct answer, but the student is the one which must develop it, even though he might not succeed to do that from the first attempt.

Learning, according to the constructivist outlook, assumes a change of paradigm: the shift from the normative paradigm to the interpretative paradigm. It is the shift from the model of learning based on the conveyance and assimilation of knowledge, on the delivery of unique solutions for some problems, which include absolute truths inducing unity and consensus, as faithful representation/reflection of reality, to the learning model based on the plurality of constructions of reality, on the diversity of solutions, on accepting the relative truth and the probability of error, on considering the knowledge as a personal or/and a collective construct (Dumitru 2007, 127).

The constructivist paradigm of learning sees its realization as a three-staged process:

✓ *Deconstruction* – which assumes putting into question some knowledge, opinions, convictions, beliefs, mentalities, individual or collective representations regarding the reality and its knowledge.

✓ *Construction* – it is the process by which those who learn develop their own meanings and significations of the perceived reality, gaining knowledge which they blend emotionally, whose viability they check and whom they adhere to.

✓ *Reconstruction* – it is in fact a new construction mirroring the structural change which has occurred in the subject's cognitions, in the ways of interpreting reality, in the strategies of solving problems, in his behaviors and his manner.

The integration of the constructivist theses in educational practice has generated many strategies and pedagogical models which promote the initiation of the students in scientific knowledge, just as it promotes learning the processes employed by experts in approaching and solving complex problems and the encouragement of the metacognitive reflection on processes of knowledge.

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