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The cognitive dissonance – in the context of the university didactics

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The unbiased and well-meaning introspection of the modern lecturer, as a subject of the educational scientific process, raises a well-founded question: are the possibilities of the lecture as a traditional form of education for professional progress and self-progress of the students exhausted? The answer is ambiguous: they are exhausted if the lecture runs as a strictly scientific monologue without the lecturer's efforts to provide an activity of the second subject of the educational scientific process – the students. No, they aren't exhausted, if the lecturer in their scientific presentation takes into account some psychological requirements of the modern university didactics. First of all, it is about including the personal volitional efforts of each student in their professional progress, as well as the active interest in lectures and seminars. But how should it happen?

An inquiry among students and pupils has drawn our attention to three didactic moments of the lecture – the motivation of the topic, the comprehension of the school material and the level of contentment of what has been already learnt. The first thing that creates impression is the low grade of assessment given by the students for the effect of the motivation of the lecture – 20% and too high of the lecturers – 80%. Second the same percentages also repeat themselves with the acknowledgement of the lecture contentment. It is clear for everyone that this level of effectiveness is, obviously, unacceptable neither for the learners, nor for the lecturers and nor for the education authorities.

My personal experience has shown that the learners' contentment depends on the level of comprehension and reflexion, and the latter also depends on the strength of the initial motivation of the lecture, the seminar or any other kind of learning activity. Since the motivation of the topic has such a crucial role for the end effect we are going first to examine the heuristic possibilities of a theory that has been so far underestimated.

The theory of L.Festinger about the cognitive dissonance. The profound ground of the theory about the cognitive dissonance is the real and scientifically proved ambition of every person to preserve their own social homeostasis, to feel their

own internal agreement. The discovery of L.Festinger lies in the fact that the breach of this agreement causes the **cognitive dissonance** / lack of cognitive agreement, acute necessity/ which opens space for activities directed towards a recovery of the harmony /from dissonance towards consonance/. It is true that L.Festinger has developed his own theory on the basis of a broad social context: social influences and communications. Thus the extrapolation of his models upon the educational scientific process, upon the contradiction among the knowledge and skills that a particular student has, are fraught with risks. It shows exactly that the potential of this theory is incredibly great and unused.

The cognitive dissonance, arisen in a particular situation, unlocks high activity of the personality towards “seeking” / L.Festinger/ of information in order to reduce the dissonance /the lack of agreement/. To make it more precise: a learner not only seeks but they “wait impatiently” for information from the lecturer, which information should reduce the dissonance and should increase that which draws them nearer to a cognitive consonance /agreement/. In this extreme condition the subject is submitted to a profound introspection and a high level of willingness for a self-progress. L.Festinger’s numerous experiments have shown the great importance of **the level** of the dissonance for its strength and effectiveness upon the consequences of the cognitive dissonance /contented cognitive necessity/.

First choice – cognitive dissonance

Such a promising beginning still remains underrated in the practice in spite of the effect which it has on a great part of the lectures. Today we have more scientific reasons to say that the strong motivation of the topic of the lecture means an intensification of the cognitive necessity. This “thirst” gives rise to a discomfort in the subject due to the absence of cognition or skill and a contradiction between what has been achieved and what is desired in the spiritual space of the “Self-conception” of everybody. For some specialties of study /such as psychology, for instance/ it is difficult because a great part of the conceptions are not turned to operate in technologies and professional practical skills. If the creative power of the lecturer transforms into a high activity of the students that means that the unity of the two subjects in the first structural part of the lecture is present. What does the inquiry show, though? The lecturer’s inaugural words are assessed as strongly motivating only by 20% of the students, while the self–assessment of the lecturers shows that they believe they have

managed to activate 80% of the students. The difference in the assessment about the strength of one and the same words is amazing. An inaccuracy of the both sides is possible but the conclusion is explicit: we, the lecturers, do not motivate strongly our lectures. We start the educational scientific process with insufficiently intensified cognitive necessity, i.e. without the necessary activity and concentration. **It seems that we feel confident and convinced but we are not convincing.** That is not a play upon words but a diagnosis because first, it shows our confidence as scholars and second – our frailty as lecturers.

The strong beginning, set by the lecturer, defines **the choice of the level of activity** for this lecture from each student. This choice can vary from the one side of the scale to the other according to the effect of the inaugural words of the lecturer. This is a choice for a physical or intellectual presence during the lecture, for an orientation towards a volitional organizing for an active education or other unwilling activities. In that way every student unlocks their own “track” for knowledge on that individual level which they have reached in their progress. This choice of theirs means: a mobilization or demobilization; for or against the temptations; a desire or a refusal from the professional progress and self-progress.

The introspection of the observations and my practice allow me to formulate several **conditions** for achieving a high level of a cognitive dissonance and an effective volitional organizing:

- A greater depth of contradiction to be achieved in the knowledge that leads to dissonance and consonance;
- The cognitive contradiction to be intensified to a level of “necessity” of its overcoming;
- The professional purpose to be emphasized through strong motivation and expectation of the absent professional skill;
- Assessments from competent scholars to be given about the meaning of the topic about the future professional activity;
- To be emphasized the risk of ignorance and inability over the examined topic;
- To be spoken with the appropriate striking with respect intonation;
- To be reminded that the comprehension is possible when there is strong concentration;

- To express your believe in the students' attitude towards the lecture or the seminar.

Second choice – a cognitive reflexion

It concerns the student's choice from the learning content which the lecturer offers in the lecture as conceptions, technologies and professional skills. For Psychology has proved long since that **the effective influences upon the personality are only those, which they choose themselves**. The subject blocks the remaining parts and doesn't let them to their mind because they are not convinced or they do not understand them. If the teaching is not on a professional level, there is no education because its goals are blocked. Neither menaces, nor moral admonitions, nor notes, nor promises or threats help in this case. Only those purposes that the student has chosen are sent off for integration in the subsystems of their personality and profession. The subject chooses and sends off in their own subsystems not only the chosen lecture topic, but also everything accompanying it, even if it is out of the teaching material – everything positive or negative that they relate to the lecture.

The psychological frame of the lecture in all school subjects, despite their difference as sciences, is common because it is a common human mechanism for training and assimilation of the school subjects. This frame consists of mental processes: analysis, comparison, synthesis, summary, abstraction, classification, association, interpolation, concretization, systematization, integration, differentiation, concentration, verbalization, anticipation, intuition, translation, etc. According to the aims of the lecture the lecturers arrange this frame – how and what relative weight each of these processes would have. Thus in daily interactions the education in all school subjects forms the processes of the professional way of thinking.

The phenomenon **reflexion**¹ is present in the context of all lectures so far as in each of them there is always a process of **comprehension and its concomitant self-knowledge and self-assessment**. The first step for those students who have made the choice for this concrete lecture is the active expectance of “the topic” /Leontiev/ that will content their cognitive necessity. “The topic” that is the new task /theme/, which satisfies the cognitive necessity and turns into a leading motive for the education. The matter of the concrete knowledge, conviction, skills, positions, and technologies of the theme that the students want is sent off for integration in the professional substructures of their personality. This part of the students has authorized the aims and carries

out a complete cognitive activity for their internalization. The other part, let's hope that it will get smaller and smaller, has been included in the „aimless' activities – i.e. other activities that do not disturb their physical presence in the period.

An essential reflexive step on the active part of the students is the highest concentration in the lecture and feeling the supreme moment of the comprehension – “The-ringing-the-bell – moment” – a complete clarity, the brainwave and the emotional boom which accompany this process. In that way those elements of the school subjects which are sent off for integration and interpolation in the subsystems of the personality are selected and specified. There this matter is already comprehended and assimilated as knowledge, a skill or an action, it will take part in the rearrangement /restructuring/ of these subsystems. That is already a new rich in content and individual choice of every person because what has been chosen today will integrate in the subsystems on an absolutely different level and with different rank arrangement. Putting a focus on the reflexion moment of the lecture, we are going to mark the following point: the comprehension is the highest level of reflexion because it enriches the self-knowledge of the person; specifies the criteria for conformity with the necessities and reaches its acme in “The-ringing-the-bell –moment” as a discovery that lays the beginnings of an intensive intellectual experience.

The inquiry research puts again the great problem about the unity of the level of reflexion in the two subjects of the scientific educational process and about the dependence of the comprehension from the initial motivation of the topic. Only 40% of the students assess that they comprehend the school subject completely while 80% of the lecturers give the assessment for a complete comprehension. The low percentage of the students about the complete comprehension of the school matter is due to the insufficient strength of the dissonance, the level of the activity and the insufficient clarity of teaching. While the high percentage, given by the lecturers, is due to their enhanced self-assessment. No doubt it is necessary for us to make our teaching easier to understand and to **ensure a reflexive level that will correspond to the intellectual level of the students.** The low acknowledgement of the students about the reflexive participation in the most meaningful part of the lecture probably hampers the rearrangement of what has been chosen from the goals of the lecture in the substructures of the professional formation of the future professionals.

The emotional uniting and effect of the reflexive free way of choosing goals is a result of the “cognitive dissonance”. According to the promising beginning the stu-

dents “authorize” their own variant of a skill in their notions which they realize by the end of the didactic process. We should not forget that the subject chooses what they like and just that they “transmit” for restructuring in the professional subsystems of the personality.

The subject chooses and sends off in their subsystems not only what has been chosen from the lecture but also everything that accompanies it, even out of the teaching material – everything positive and negative that they want to. We should stress once again on the following: the subject self-develops only with what they want themselves. The lecturer has the considerate task to implant a good choice in each student. Besides it concerns not only facts and regularities, but also methods, ways, strategies, rules, variants, etc. If the goals and the tasks of the lecture correspond to the intellectual level of the students, if the motivation is performed on a professional level, if the teaching creates an optimum level of intellectual strain, their progressing and self-progressing values are realized. Unfortunately, the inquiry here does not support this optimism.

Keeping to some psychological **conditions** can make use of the effect from the cognitive dissonance and can turn into a high level of contentment:

- The level of difficulty of the material should be close to the edge of the already reached level of students;
- The clarity of the presentation should correspond to the language level of the students;
- Use of illustrations and attractive elements to be used carefully in order the intellectual level of the lecture not to be lowered and to go down that of the students;
- Each theory to be presented at least in two variants of operating for practical aims;
- The problem situations that make the intrigue stronger when doing school exercises to be included;
- Dynamics of the tension to be provided in accordance with the capacity of the students’ attention;
- Directions to restructure the subsystems after assimilating the new material of the lecture to be given.

The restructuring /rearrangement/ of the subsystems of the personality is a direct result of the accepted values of the lecture and it is a mechanism of progress

and self-progress. For each knowledge strengthens the positions of the consonance and reduces these of the dissonance. In that way it provokes a change in the rank positions of the necessities, motives, values, professional competences and the other subsystems of the professional culture which have a hierarchical structure. With the term “interpolation” the restructuring of the subsystems of the personality that is accomplished due to the choice of new aims from the lecture matter is marked. **It won't be forcedly if I say that the restructuring is the intimate mechanism for self-progress, including the one for the professional self-progress of the personality.** The restructuring that has occurred as a result of an individual choice has much higher effectiveness compared to that one rooted in fear and forcible methods of education and upbringing. If the restructuring embraces the substructures of the personality, if it has an effect on the different types of necessities and the based on them more perfect criteria, **new but, in fact, at the same time tender constructions with insufficient stability and resistance against the destructive external influences** will be established. Along with this, the new constructions create not only a feeling of contentment of the assimilated material, but also a sensation of necessity for applying the acquired professional knowledge, skills and habits.

The new tender structures of the subsystems need consolidation and stabilization. This process, of course, cannot be completed during the lecture course. In fact, it only starts in them. The fixing time takes place in the conditions of strong contradiction of lots of factors. That's why the limited time for fixing during the lectures and seminars should be used most effectively. The higher the stability during the exercises during the seminar practice is, the higher the effectiveness of the training of the students alone will be. **The stronger the fixing time in the lecture-halls and the laboratories is, the more successfully will the students cope with the temptations, difficulties, with the lack of will, with the hard living standards conditions in the students' daily lives.** Thus practical seminars aiming at fixing, clarifying, systematizing of what has been learnt attain a particular importance. The exercises in the conditional or virtual situations which the students will face after graduating from the university become extremely important. Fixing is necessary because it makes the transfer of professional knowledge, skills and habits in the different life and activity conditions easier and more successful. The research confirms the tendency for a higher assessment on the part of the lecturers: according to them 60% of the students want to

apply what they have learnt from the lecture, while the students themselves think that only 40% want to do so.

Cognitive contentment

The fixing sums up the emotional effect got through the acquisition of the professional knowledge, skills and habits. In this respect the students are assertive: they begin the educational scientific process with 20% conviction in the importance of the topic and finish with 20% contentment of the acquired professional knowledge and skills. There is no difference between the first lecturers' assessment about the convincingness /80%/ and that of the final contentment /80%/.

As it is well-known every part of the personality includes a basic leading fund of similar structural units. Except it more structural units of other fields are included. The motivation sphere, for example, consists of leading structural units- motives, but except that it contains elements of other fields too which have motivation potential. **In that way the new one, which the personality assimilates during the lecture, is integrated in plenty of subsystems at the same time, even it takes the dominant place in only one of them.**

In order this important process to be facilitated it is necessary some conditions to be followed:

- a high scientific didactic level of the first and second cognitive choice to be provided, because they determine the rate of contentment and the whole effectiveness of the lecture;
- a well considered and unostentatious professionally directed summary of the lecture should be provided;
- A systematic assigning of school tasks for seminars and independent training are necessary.

Conclusion. This article presents an attempt to dwell on the reflexive analysis of the lecture and the seminar as organizational forms of education and professional progress. It gives arguments to support the important role of the intensified cognitive necessity during the first choice and of the comprehension /reflexion/ during the second choice. The methodological tradition in pedagogical psychology gives me an opportunity not to restrict myself to a particular school subject or university specialty of study. The analysis and the inquiry lead to the following conclusions:

1. The closer the level of reflexion between the two subjects in the different structural parts of the lectures and the seminars is, the higher the effectiveness of the educational scientific process is. The great difference shows methodical frailty of the lecturers and the broken communication among them and the students.

2. In accordance with the regularities of the internal choosing of goals, the students' education should start with intensified cognitive dissonance. That obliges the lecturer to present the aims of the lecture in the best possible convincing way. Thus is ensured a promising and to some extent crucial beginning which will provide a high effectiveness at the end of the activity.

3. The teaching material should be presented to the students clearly in order to be understood by everyone and to be experienced as "The-ringing-the-bell I see-moment". Through a great mastery the lecturer should provide a good and voluntary choice of aims from the topic contents such as: desires, qualities, strategies, models of behaviour, etc. All that should create an optimum intellectual, emotional and volitional tension because as such it will contribute to the professional progress and self-progress of the students' personality.

4. The systematic training of what has been learnt leads to fixing of arrangements, dispositions, strategies and models of behaviour. Thus the students consciously or unconsciously acquire a high level of resistance against the difficulties in their professional and social realization.

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