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Motivational Task:

Methodology and Method of Work Motivation Diagnostics

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Abstract

The article features a new assesment technique of work motivation diagnostics based on the concept of motivational task. A motivational task is a tool for self-appraisal of the field of motivational objects allowing further reconstruction of motivational space. The conditions of the motivational task resolution have been implemented in the assesment procedure named Motivational Map. The diagnostics procedure consists in multiple visual appraisal of 16 motivational objects (J.Nuttin) within a dimensional graphic space determined by 6 evaluation scales. Approbation of new assesment technique was conducted on a sample of 206 financial specialists. Collected results were compared with the scores received with the help of standard questionnaires. The results of psychometric verification of validity and reliability are presented in the article.

Keywords: Psychodiagnostics, Work Motivation, Motivational task, Motivational Objects.

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1. Motivation diagnostics: issues and solutions

Studying human behavior related to labor activities entails addressing the category of motivation as well as a separate issue of the motivation diagnostics. Scientific research within the scope outlined below seems most important to efficiently approach the latter.

1.1. Specifics of motivational space as a psychodiagnostics objective

Essential characteristics of the psychodiagnostics of motivation are situational peculiarities and dynamics of motivation, on the one hand, and incorporation in motivation of conscious and unconscious components, on the other [1], [2], [3], [4], [5]. Valid assessment of motivational structures needs these specifics to be considered.

1.2. Motivation indicators

Motivation indicators are a means of psychological reconstruction of the psychic reality through registration of certain empirical characteristics. The complexity of motivation indicators research lies with the fact that motivation is incorporated in most spaces of psychic activities, which in turn demands a large number of operational criteria to be employed by motivation psychodiagnostics.

1.3. Comparative appraisal of motivation

Traditionally psychodiagnostic questionnaires and test methods are used in motivation diagnostics. Psychosemantic, projective and semi-projective tools (TAT, H. Murray; MMI J. Nuttin, etc.) form just a minor part of overall methods. Surveys show that there are no substantial correlations between diagnostics of the same motives through projective methods and through questionnaires. Thus, the conclusion was made that these methods perform diagnosis of different aspects of motivation [6], [7], [8]. Consequently, to allow an unbiased estimation of the motivation it is most important to ensure there is a balance in use of versatile methods. Nonetheless, until now there have not been any publications featuring incorporation of different paradigms.

1.4. Balance of direct and indirect measurement

In our opinion, it is crucial to make use of both direct and indirect methods of measurement, as the former allow better assessment of conscious components of motivation, while the latter of unconscious ones. Without prejudice to the previous statement, we believe that effective diagnostics of motivation can also be conducted in a specially created environment (in a wide sense – in experimental environment) that would allow to take into consideration the specifics of motivation as a complex psychological structure.

2. Motivational task

While establishing the leading principle of the diagnostics procedures we pursued a shift from measuring 'bare' motives towards measuring motivation within the framework of a 'motivational task', which is similar to the popular methodological principle of psychophysics, i.e. moving from the psychophysics of "bare sensations" to the psychophysics of "sensor tasks" [9]. The interpretation of the conceptual tool of a 'motivational task' adopted in this article is in line with the definition of a task proposed by A.N. Leontiev, which is 'the intent of an action defined by the specified conditions' [10]. Thus, we understand a motivational task as a tool for self-appraisal of the field of relevant motivational objects allowing further reconstruction of motivational space.

According to J. Nuttin, the motivational objects are being interpreted in this article as diverse though functionally identical objects-goals revealing general or primary needs triggering a great variety of motivations [4].

As part of the methodology developed by the authors of the present article a motivational task appears as a express, graphical procedure of comparative assessment by the examinee of 15 motivational objects placed by him/her in a dimensional geometric space determined by the evaluation scales.

We use the term of subjective motivational space to refer to the geometric structure reflecting the relations between the motivational objects. The term is used as corresponding to the definition of subjective psychological space in modern models of multidimensional scaling [11]. While comparing the motivational objects, visually evaluating the subjective distinction between them, the examinee directly or indirectly takes into consideration a number of characteristics of the motivational objects. These characteristics may be simple (one-dimensional) or complex (multidimensional). At the same time each motivational object is associated with a specific degree of representation of its characteristics. Relying on the postulate of the multidimensional scaling that subjective psychological space is similar to geometrical (where basic axes and points are defined and a specific method of calculating the distances between the points, or the metrics, is introduced) one in its structure, a geometric model of the psychological space can be constructed.

When operating the concept of the motivational task, we believe, it is important to refer to the concept of the psychological field as interpreted by K. Lewin. The dynamic aspect of the need – its high or low degree, relation to other needs – was crucial to him [3]. With regard to the psychological field, K. Lewin also emphasized the relation between the quazi need and the object, recognizing that we are living among things which carry a certain valence. As a consequence, when employing the concept of the psychological field, it seems important to pay special attention to motivational objects correlating to human needs and thus carrying valences. In this theoretical context we understand the motivational space as a space of motivational objects which the individual refers to in the course of the motivational task resolution.

3. Conditions of the motivational task

In order to establish a diagnostic procedure based on a motivational task resolution, we developed its conditions, an algorithm for its resolution, and a relevant selection of motivational objects. For this purpose an empiric survey was conducted allowing 15 motivational objects (see below) to be defined, all relevant to the examinees' labor activities, and the evaluation scales (see below) [13].

3.1. «Ranging of the motivational objects»

The first condition of the motivational task is based on the statement by A.N. Leontiev about the hierarchy of motives [5] and determines the need for the examinee to range the motivational objects according to the subjective prioritizing. Thus the researcher collects information about the hierarchy of the motivational preferences of the examinee.

3.2. Location of the subjective centre of a motivational space

The introduction of this condition finds justification in the key principles of the concept of psychological field by K. Lewin as well as concepts of figure and background developed in the gestalt psychology [3]. According to K. Lewin, the psychological filed is the structure where behavior of an individual is being performed. It comprises motivational orientations of an individual as well as their objectives. Thus, the second condition of the motivational task consists in the examinee conducting a direct absolute estimation of the top priority motivational object by choosing such an object and placing it within a certain graphical coordinate system (evaluation scales).

This condition allows to define the subjective centre of the coordinate system, which builds part of the background for motivational objects of subordinate priority. Checking every new motivational object against the placement of the highly prioritized object within the frame of evaluation scales, the examinee gets involved in a dynamic process of reflection over the relation between the figure (newly placed object) and the background (the structure formed by the earlier placed objects) of his/her subjective motivational space. In the course of the task resolution a dynamic, i.e. flexible, multivalent motivational field allowing comparison between the objects is being built up. Thus, a motivational space with one or more centers is being developed in the set coordinate system (the top priority motivational objects serve as the centers).

It shall be emphasized that fulfilling this condition the examinee, along with conducting comparative appraisal of motivational objects while placing them within the frame of two evaluation scales, shapes the next condition of the task setting. By these means a reconstruction of the motivational field of the examinee's as well as its graphical representation are made possible.

3.3. Multiple comparative appraisal of motivational objects

This condition of the motivational task employs the classical principle of indirect scaling as developed by L. Terstown, the one of acquiring scale variables through multiple comparative appraisals conducted by the examinee. In our opinion, implementation of the procedure of multiple comparative appraisals strengthens reliability of the conclusions. Firstly, it is a known fact that comparison of the objects against a specified quality has advantages over direct estimation of the degree of quality in an object. The comparative appraisals made by the examinee enable registration of conscious motivation components along with unconscious ones. Secondly, this procedure allows minimizing the impact of social expectations present in most popular questionnaires.

The implemented procedure provides a tool for express graphical measurement of the spaces between the motivational objects and the ensuing reconstruction of the multidimensional subjective motivational space. Thus, the third condition of the motivational task is determined by necessity of placing the sequential (by criteria of priority) motivational objects against the previous ones. It encourages the examinee to conduct comparative appraisals of the motivational objects and then place these objects against each other in a graphical coordinate system with subjective centers determined by the top priority objects. We assume that these subjective centers have a leading role in developing the examinee's internal coordinate system (frame of subjective scales) during comparative appraisal of the motivational objects. Thus, through repeated reflection the examinee reconstructs his/her motivation field defining the subjective relations between its objects via graphical means employed by the methodology, and so communicating important psychodiagnostic information about the field.

It is important to emphasize that while placing the second and sequential objects the axes of the graphical space become tentative, their function reducing to determining the location of the new objects (above, below, to the right, to the left) against the ones already introduced. Every new object will only add to the tentative character of the axes, as the examinee has already selected the subjective measure when placing the first and second top priority motivational objects, having done this expressly, graphically.

This above assessment procedure ensures there is a proper balance between direct and indirect measuring of motivation, which, in our opinion, increases reliability of the motivation assessment conclusions.

3.4. Sequential refinement of the motivational objects appraisals

This condition of the motivational task is consistent with the third one and aims at obtaining most accurate and reliable examinee's appraisals possible. This condition is based on the feasibility of corrective actions related to the placement of the previously introduced objects as a result of sequential inclusion of ever new objects in the graphical space. This encourages the examinee to review his/her attitude to the objects already in as well as to the spaces between these objects; such a review is triggered by every new object introduced. Due to the fact that the

priority of every new object is lower than that of the previous one, the increased cognitive complexity associated with review and reassessment of the personal attitude to the motivational objects is compensated for by the decrease in the cognitive complexity associated with evaluation of the lower priority objects. We believe that this forth condition of the motivational task provides an opportunity to specify the subjective idea of relations between the motives as well as enhances the accuracy and reliability of the comparative appraisals.

3.5. Corrective actions applied to the motivational space based on the introduction of the top priority motivational object of money

The fifth condition of the task consists in the request to place the objectively top priority object of money (not suggested to the examinee for primary ranging) within the graphical space after the examinee had placed all the previously suggested motivational objects. The objectively top priority object of money may serve a purpose of work motivation assessment due to the fact that it reflects the material interest-based motivation and provides an opportunity for assessing the influence of material incentives on the immaterial motives of the examinee's. The fifth condition encourages the examinee to reassess not only a number of motivational objects in close proximity, but the whole system of his/her motivational objects assessments.

The inclusion of this condition allows to acquire information about the competing motives, which is highly important for any employer when developing the employee material and immaterial incentives programs.

4. General description of the algorithm for the motivational task resolution

An examinee solves the motivational task in accordance with the standard procedure of sequential implementation of the conditions of the task.

- Introduction of the evaluation criteria and motivational objects definitions.
- Selection of the first top priority motivational object among those on the list and its placement within the graphical coordinate system determined by the evaluation criteria.
- Selection of the second top priority motivational object and its placement within the coordinate system based on the relation to the first one.
- Placement of the remaining motivational objects in descending order, as per the decrease in priority, based on their relation to the already introduced objects. Corrective actions related to the placement of any motivational object are allowed at this stage.
- Placement of the additional object of money (not suggested for the primary ranging) among the objects already introduced. The examinee's right to change the placement of any motivational object already introduced is still preserved (which is indicated in the instruction).

5. Registered parameters of the motivational task resolution

In the course of the task resolution the following parameters of diagnostic interest are acquired: time required to resolve the task; the order of the motivational objects selection (i.e. ranging); absolute estimations of the motivational objects (i.e. projections of the motivational objects on each of the evaluation scales); relative estimations of the motivational objects perceived as Euclidean distances between the objects when placed within the frame of assessment criteria; absolute estimations of the motivational objects (i.e. projections of the motivational objects on each of the evaluation scales) after the object of money has been introduced; relative estimations of the motivational objects perceived as Euclidean distances between the objects when placed within the frame of assessment criteria after the object of money has been introduced.

6. Tools and materials

In the course of the multiple surveys held in 2009 – 2012 we developed a tool kit incorporating instructions, as well as empirically acquired and tested 15 motivational objects (among them: 'promotion', 'status', 'job-related satisfaction and inspiration' etc.) and six evaluation scales grouped to determine three dimensional graphic spaces: 1) "Importance" – "Success probability", 2) "Progress" – "Challenges", 3) "Effort" – "Reasoning".

7. Empirical testing of the methodology

The methodology of the Motivational Map was empirically tested on 206 Russian language speaking examinees employed in the finance sector. The construct validity of the methodology was assessed by means of the regression analysis. The scales used in the standard methodologies of work motivation assessment served as the independent variables, while the parameters registered by the developed methodology served as the dependent variables. In the course of validity analysis 32 highly important regression models were established, their explanatory dispersion ranging between 50% and 70%. The (retesting) reliability was assessed through comparison of the factor structures deduced from the parameters registered by the methodology. High significant factors correlation coefficients ranging between 0,61 and 0,84 were established. The representational force of the methodology was established through assessment of the normality of distribution of the registered parameters: for 87% of the parameters the normal distribution was confirmed.

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