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UDC 37

DIAGNOSTIC CAPABILITIES OF ASSESSMENT METHODS OF INTUITION

SUMMARY. This article analyzes the possibilities of different methods of assessment of intuition. The study is based on an online test simulating the conditions of professional activity.

KEY WORDS. Intuition, diagnostic techniques, situational tests.

Intuition is a psychic phenomenon which is difficult to evaluate due to the fact that its appearance is hardly comprehended by human beings.

The research of J. A. Ponomarev [1], D. Berry and D. Broadbent [2] have shown that intuition is manifested only in the process of activity, and when one makes an attempt to verbalize the intuitive actions committed, the efficiency of activity greatly reduces. As for the means of intuition research, they are mainly presented by questionnaire methods which suggest a reflection of a test subject concerning the process and the result of intuition. Thus, being in the process of development, the theoretical validity of the methods is under threat. One of the ways to avoid such difficulties can be the creating of situational tests or situational techniques where the intuitive specifics of the situation are taken into account.

Purpose:

1) To analyze the possibilities and limitations of intuition assessment methods created within the different diagnostic approaches.

2) To demonstrate the capability of situational tests in the evaluation of investigators' intuition.

Theoretical review

Today besides the survey methods there are some other approaches to the development of intuition phenomena diagnostics methods. They can be divided into three groups: validity tests, subjective and situational (case) methods. Each of these group methods has its own capabilities and limitations.

Questionnaires focus only on intuition phenomena evaluation (the questionnaires "Level of intuition" by E.A. Naumenko, "Ability to forecast" by L.A. Regush) or include separate scales aimed at the evaluation of intuition phenomena expression (the typological questionnaire by Myers-Briggs, the questionnaire of empathic abilities by V.V. Boyko, the personal questionnaire by Kudlichkovskaya). The authors of these questionnaires consider the diagnostics of intuition phenomena from different

theoretical positions, but the described cases allow for inconsistency in terminology, not in the various phenomena.

The described psychodiagnostic toolkit is a methodology established in the framework of a subjective approach. A significant limitation of the results obtained by these methods is that the researcher is forced to believe the content of the self-report of a test subject concerning his own intuition. In professional situations, connected with the risk to life and health, it is still one of the most environmentally positive ways to get the opportunity to evaluate the intuition phenomena, however it is not the most reliable, insofar as the research of J.A. Ponomarev, D. Berry and D. Broadbent showed that intuition is manifested only in the course of practical activities.

J.A. Ponomarev asked the tested people to carry out two tasks in sequence, the first of them was not a direct clue to the solution of the second task. It was just the “by-product”, which the researcher got at the solution of the first task, but it significantly reduced the number of errors in the solution of the problem. Thus, the existence of a particular intuitive experience outside human comprehension was shown, and this kind of experience is formed and reveals itself only in the course of activity.

Much later, similar studies were carried out by D. Berry and D. Broadbent on the material of computer games. The results gave grounds to distinguish two types of learning: implicit and explicit. With implicit learning, a man at once takes into account multiple variables, fixes the connection between them in a concrete form. Implicit knowledge is non-verbal and is used only in action. With explicit learning, a limited number of variables is in the field of attention, and generalized, verbalized relations among them are fixed. Explicit learning is used when solving algorithmic tasks, but it turns out to be not often used in the conditions of professional activity, when it is necessary to take into account subtle relationships within the situational conditions.

The researchers propose action tests to avoid reflection (the “Roulette”, “Anticipation” and “Methodology of the subjective perception of time study” methods by E.A. Naumenko). All of these methods estimate the level of intuition by the number of correct answers in the course of practical activities. This eliminates the possibility of subjective understating or overstating the level of intuition, and does not require verbalization of intuitive decisions. However, there is another difficulty—the tasks carried out in the course of the research are not connected with the professional activity of the tested people.

Situational techniques assess the appearance of intuition phenomena in the solution of practical situational tasks (“Forecast task” by L.A. Regush, N.L. Somova; methods of stopped video clips by T.V. Kornilova with co-authors).

T.V. Kornilova, O.V. Stepanosova, E.L. Grigorenko described the experimental research of intuition phenomena with the usage of specially shot video clips. The task of the tested people was to make a verbal forecast for the further development of the events in the video, the display of which was interrupted by the experimenter. So, the correlation of the intuitive and discursive components in situation development forecasting was studied. “‘Instrumental’ and ‘personal’ effects in the dynamics of forecasting were discovered, they are evidence of openness of hierarchy in the processes of psychological regulation of decision-making, not-setting of cognitive

strategies of forecast formation and the need for the identification of processes, mediating the various stages of decision-making” [3; 126]. The described situational methods do not take into account the specificity of professional activity of the tested people, and their life experience and practical experience are leveled as the result.

The professional activity of investigators is maximally saturated with the conditions for intuition revealed: there are a large number of variables, the relationship between them is implicit, but demand accounting for when making decisions.

Hypothesis: *The most successful and the most unsuccessful investigators will have a very specific character of movement on the pages of the site (“path”).* We did not suppose any exact characteristics of this specificity, in the hope of considering the sequence of different information aspects solution by successful and unsuccessful investigators inductively, in an exploratory manner.

The empirical study

A.U. Popov (2011) proposed a special diagnostic procedure for the simulation of processes of intuitive decision-making by the investigators. It represents an online test [4]. A group of professional tasks often met in the professional activity of an investigator was selected. The situation of personal criminal affairs consideration was chosen, and intuitive prediction of the severity degree of relapses, which the criminals may have committed. This kind of situation is the everyday reality of each investigator. He has to study the personal affairs and consciously or subconsciously evaluate and predict: how dangerous is the person for society?

At registration on the web page a test subject was offered 12 standard photos. When clicking on any of them the test subject found himself on a page with information about the man shown in the photo. The task of the tested people was to study the personal information about each of the prisoners from personal affairs, and determine 6 imprisoned murderers at that time from 12 people on photos. Some numbers were fixed as dependent variables: 1) the total number of correct answers (from six), 2) the time spent on each of the 49 pages of the site (in seconds). This indicator was recorded, hidden from the test subject.

When clicking on any of the photos the test subject found himself on the page provided with the whole information about the person shown on the photo (height, weight, sex, race, colour of hair and eyes, date of birth, date of the first imprisonment, etc.). Then the tested could walk at three other reference links: 1) special features (which contained a detailed description of special features—tattoos and scars; the location of every tattoo on the body was indicated and there was a description of the tattoos), 2) the history of imprisonments (cited the date and the duration of being in prison, if the person previously had such experience), 3) the history of charges and sentences (when and for what the described person was imposed sentences, and what was the duration of the punishment on the basis of these accusations). Thus, the test subject could get to the personal pages of one of 12 people from the main page of the site. Each personal page was also divided into 4 additional pages according to the type of the described information (48 pages totally, contain information about the prisoners, and the home page). Each page was supplied with cross-references, so that a test subject could, for example, return to the home page of the site at any time.

37 people took part in the experiment (the investigators from the city police department). The investigators who guessed 5 of 6 set criminals, were considered to be “successful” in this experiment; the investigators who guessed 1 or 2 set criminals, were considered to be “unsuccessful”. No one got the maximum possible score in the sample.

Results

There are generalized quality descriptions of the movement “path” across the pages of the site for each of the test subject here (using code numbers, which were assigned to the respondents in the sample):

Respondent № 2—She consistently and once looked through all the pages in order, with no coming back to the previous pages. She spent in total 578 seconds researching the information pages, 65 seconds researching the first page with photos.

Respondent № 4—He consistently looked through all the pages related to the first personal affair, then, probably, decided, that the information is only on pages 1 and 4 (portrait photography and the history of charges); the tenth personal matter was not considered at all. He spent 171 second plus 75 seconds to research the first page.

Respondent № 10—He considered only the pages with the stories of the charges, came back many times. There is an impression of pair comparison of a few personal affairs. He spent 467 seconds, researched the initial page for 175 seconds (probably indicating frequent revision of his choice).

Respondent № 14—firstly the view was consistent, then a few returns. The pages with the history of the charges were preferred. Researching of the portrait page took 85 seconds, total time was 181 seconds.

Respondent № 15—He made two consecutive “passages” across all pages of the site, clearly preferred the pages with the history of the charges. He spent 363 seconds plus 120 seconds on the portrait page.

Respondent № 27, firstly consistently and fully considered all the pages of the personal affairs (in order), after some personal affairs passed only to the pages of imprisonment history and the history of the charges. After one “passage” considered a few personal affairs again (some of them several times). Again, an impression of comparison and contrast of affairs to each other, a search for a common basis for comparison is created. He spent 586 seconds to the pages of the personal affairs, 100 seconds researched the original page with photos.

Respondent № 28—She just “walked” in a chaotic manner only over the pages with photos and the most common “demographic” information. Either she did not understand that there were some more pages, or specially limited her choice. She spent 209 seconds on the personal affairs (quite a lot for 12 pages), 104 seconds on the original page (that shows rather thoughtful analysis and intuitive comparison).

Respondent № 37—He consistently looked through all the pages related to the first personal affair, with a strong preference for the pages with the history of the charges. He spent 127 seconds plus 39 seconds researching the portrait page.

Discussion of the results

1. It is possible that the correct intuitive conclusion depends on the degree of “good faith” (responsibility) in the processing of information—first of all on consideration of all the materials and drawing up a “latent card” of the job.

2. The original specification of assessment base also may be the condition for successful implementation of such tasks—for example, the choice of the previous charges history and sentences as a leading comparison criterion for the consideration of the personal affairs.

3. Perhaps the solution of the investigator can be achieved in two stages: firstly, the most obvious “marker” differences and the attribution of several “exact” people to the categories of fraud or murderers, and then (in the second stage) consideration of the less obvious cases and their comparison with the standards. This is indicated by the periodic return of the respondents to some of the previous pages. It also confirms the conclusions of A. Tversky and D. Kahneman on the heuristics of “anchoring” (anchoring)—at first a man chooses a certain basic point, then he compares cognitively all subsequent incentives with this basic point. The selection of the original cognitive point is a very important factor, because the proportion of variability in the respondents answers may depend on it very much.

Thus, a typical investigator, making decisions about people to suspect of murder, firstly takes a number of more “simple” and “obvious” solutions, and then uses these decisions as a “standard” or “precedent” for all the following. One may interpret this fact concerning the context as intuition depends on prior experience, which is likely to be cancelled when a new or even a slightly new context appears. The experimental procedure itself is this new context.

We can suppose that the pages of “synthetic” nature are also processed analytically, for example, photographs can be compared with the image of a “killer” or a “thief” from the personal experience of the investigator. This assumption also needs to be additionally checked. It is necessary to organize a phased experimental procedure where photos are shown to the tested people consistently, under control and limited in time (the experience is formed in this way). However, for the organization of such an experiment, strict quantity calculation of the similarity of photos extent (objective or subjective) should be considered.

Conclusions

Diagnostic methods created within different approaches give researchers the opportunity to get information from different levels of the psyche. Subjective methods give the opportunity from the level of conscious, rational, controlled tests, actions and case methods—from the level of the unconscious and non-reflexed. In light of the fact that the analyzed phenomenon belongs to the sphere of the unconscious, the more valid way is to use test actions and case methods to research intuition phenomena.

REFERENCES

1. Ponomarev J.A. The psychology of creativity. Moscow, 1976.
2. Berry, D. Broadbent, D. Implicit learning in the control of complex systems // Complex problem solving. / P. Frensch, J. Funke (Eds.), 1995. P. 131-150.
3. Kornilova T.V., Stepanosova O.V., Grigorenko E.L. Intuition and rationality in the level of regulation of verbal forecasts in decision-making // Questions of psychology. 2006. № 2. P. 126-137.
4. URL: <http://cepsideks.ru/decisionlabtransition.php>