INFORMATION INTERACTION OF THE PERSON WITH AN ENVIRONMENT

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The summary. The mathematical model of interaction of the person with an environment is offered, which allowed on the base of common attitude to explain Miller's magic number, K.Junga's typology, number of representative systems and many other things.

Let's give the assumptions, which are put forward by us for construction of a model, based on well-known data:

1. The exchange and transmission of the information between the individual external and inner life is carried out with distortions. Two different persons see the same phenomenon and describe it differently. It allows speaking about channels of reception of transmission of the information, as about liaison channels with casual (stochastic) indignations. We shall not bring to a focus the nature of these indignations (both external, and inherent in the information system itself), the main thing is that these indignations really exist and deform the acting information. In the theory of the information this fact is called casual noise in a liaison channel.

2. Adaptability is inherent in all wildlife; any influence on living nature leads it to more or less adequate answer. Refusal of consideration of the individual as adaptive information system causes and caused difficulties in psychological identification.

3. Existence of a feedback is inherent in wildlife and is expressed in the response of any living essence to any external and internal influences to it. The individual (tested) and the experimenter (testing) during carrying out of experiment, they want this or not, form a system with a feedback. It means that for them, as well as for all nature as a whole, the principle of uncertainty is carried out.

Finally, as a model of a mental condition of the individual it is accepted *stochastic adaptive dynamic information system with a feedback.*

Structurization of a model.

The basic assumptions:

Mental condition of the individual is a stochastic adaptive dynamic information system with a feedback.

External information source (the outside world) is a material world surrounding the individual, his physical body.

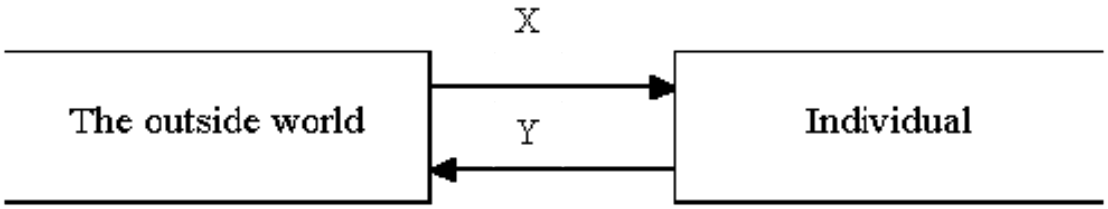
Transmission of the information is carried out on a liaison channel with casual indignations.

Liaison channel of the system with an external world is an essence of sensation.

The initial stage of construction of a model of an information exchange can be presented how it is shown in a Illustration 1

External world – a liaison channel – a system (a mental condition of the individual). With this chain we begin making construction of a model. At this stage we distract from internal properties of the system and we investigate only its relation with the outside world, precisely also we abstract from concrete sensations and we consider something transmitting the information in the general view from the out-

side world to the system.



X – the external influence

Y – the reaction

Illustration 1. The first stage of a model construction

Passage of the information on a liaison channel is a well-studied process in the theory of the information. At the first stage of the information hit to a liaison channel there is being formed a response of the system to the occurrence of the information in an input so the transition of the system into the excited condition is formed.

Here it is useful to make deviation to K.Jung's works: «in the behavior the person is guided by the data received from the outside world. But people unequally react to the same information: some of theme impulsively, directly, others pass each new signal all over again through themselves, their reaction depends on their inner orientation. So the first group is focused on the external facts, the second group remains at opinion which is put between it and the new phenomenon». So the first class is characterized by some uncooperative altitude to an object, more likely by positive. As it is known, the first class corresponds to introvert orientation, and the second one to extravert orientation». The delay in reaction to influence, in our opinion, is secondary as the introvert with a good reaction can react more quickly than the extrovert does. Primarily is the attitude to the coming information. According to K. Jung, «the first class is characterized by some uncooperative altitude to object, last - more likely positive». These explanatories have rather indistinct character; obviously, there might be a lot of influences on the system and to expect unequivocal reaction to all kinds of influences would be ridiculous. However, with confidence it is possible to tell the following. Introversion and extraversion as the types of orientation designate a disposition causing substantially all mental process as they characterize the predisposed reaction and determine not only the way of action and a kind of subjective experience, but also the character of unconscious indemnification.

In our model the first block of the system is the block, which is in one of two steady conditions with corresponding probabilities of these events. Within the limits of the theory of coding of the information: the 1-st block is the function, being in one of two possible conditions which we shall designate 1 and 0. For definiteness we shall consider that 1 corresponds with the extravert orientation and 0 – with the introvert orientation. In general it is necessary to note that vert-characteristic is the fundamental characteristic of the alive and lifeless nature and represents the philosophical law of unity and the conflict of opposites. As the examples it is enough to take positive and negative electric charges, the left and right hand, etc. indefinitely.

These logic constructions allow formulating a problem of formation of a signal coming from the outside world. Existence of the adequate response to external influence, both, the involuntary and comprehended, repeatability of the response at the same influence, allows to assume existence of function

$$Y = F(X),$$

Where **X** - a casual variable (an entrance signal). **Y** - is in one of two possible conditions (1 and 0) with the set probabilities ***p*** and ***q*** for which the statement ***p + q = 1*** is fair**.** And **F (X)** - transformation (function), which to each value of signal **X** puts response **Y** in conformity**.** The fact that **F (X)** is not unequivocal function as it is accepted in the mathematics, we designate with a brace which corresponds to logical "OR":

$$Y = F(X) = \begin{cases} f_1(X), \text{ with probability } p; \\ f_2(X), \text{ with probability } q; \end{cases}$$

$$p + q = 1$$

The nature of functions $f_1(X)$, $f_2(X)$ for us is unknown. We understand them in mathematical sense, namely, as some conformity between sound, visual, tactile, etc. signal of an environment and an electrical signal, which is clear to a brain.

Isolating the block of transformation of the entrance information from the system, we lead a first step of detailed elaboration. The response of the individual to external influence yet we do not consider. The result of these constructions is presented in Illustration 2.

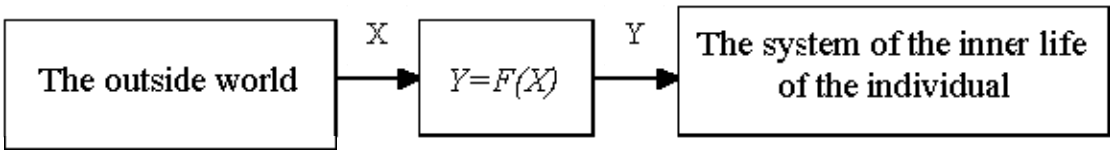


Illustration 2. The selection of the block of incoming information processing

The existence of the 1-st and the 2-nd signal systems, and it absolutely fact in evidence, forces us to recognize existence of two channels of transmission of the information: through the first and the second signal systems and to add Illustration 2 with the second channel with function of the same casual nature, as well as F (X). Considering the existence of two signal systems, the entrance block and the system of dialogue of the individual with an the outside world receives a scheme presented on Illustration 3:

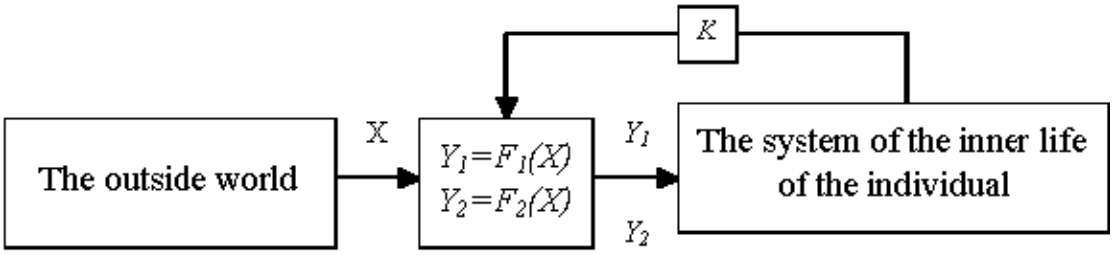


Illustration 3. The transformation of incoming information by the 1 and 2 signal systems and the back feed outline

Where stochastic functions $Y_1 = F_1(X)$, $Y_2 = F_2(X)$ are supplied by the indexes designating an accessory belonging to the 1-st and the 2-nd signal systems.

The outline of a negative feedback is put into system with a coefficient of strengthening amplification "To". The fact of such feedback was proved by I.P.Pavlov. Besides the switching-off of the system of the inner life of an individual from the outside world as it shows practical experience and experiments on full isolation, leads to transition of the system of the inner life to an unstable condition. This fact proves of a positive feedback in the inner life system. The negative feedback besides the transmission of the response, which corrects the incoming signal of the outside world, carries out the stabilizing function, and this is quite natural for the majority of automatic control systems and the control. The destabilizing factor in transition of the inner life system to an unstable condition serves the casual indignations (scarps of memory, phantom pain, etc.), which increase and remove the system out of operation if they are not suppressed by the contour of a feedback.

The 2-nd stage of a model construction (internal structure of a model).

Let's consider the process of transformation of the information received from the first and the second signal systems. This information is processed by the left and the right hemispheres of an individual. They function in combination but are independent.

Researches show that the joint-work of both hemispheres is a spasmodic process. The thinking really "jumps" from sensual images to logic conclusions and back, and, as a rule, the individual does not realize it.

Having accepted the existence of the 1-st and the 2-nd signal systems, we have allocated two stochastic functions: $F_1(X)$ and $F_2(X)$. Existence of two hemispheres – left and right – and their joint but independent work leads to necessity of introduction of two more functions $F_3(X)$ and $F_4(X)$, delivering the information to the left and right hemispheres. Having allocated these two functions from the structure of the model, we shall conditionally name the remained part of the system «pure mind» the primary goal of which is processing of the coming information. The way of this processing we shall not consider. Everything that connects the outside world with «pure mind» and «the pure mind» with the outside world is four stochastic functions $F_1(X)$, $F_2(X)$, $F_3(X)$, $F_4(X)$, accepting values **0** and **1** with the certain probabilities.

The stochastic model of information system.

1. The basic assumptions:
   1.1. The Information from the outside world is transmitted to a brain through the 1-st and the 2-nd signal systems.
   1.2. The Brain consists of two hemispheres working in combination but independently.
2. The Information is transmitted through a liaison channel with casual indignations.
3. Transfer function of each channel is the stochastic function accepting two values (two attitudes to the information on an input).

Basing on these assumptions we represent the block diagram of a model, Illustration 4.

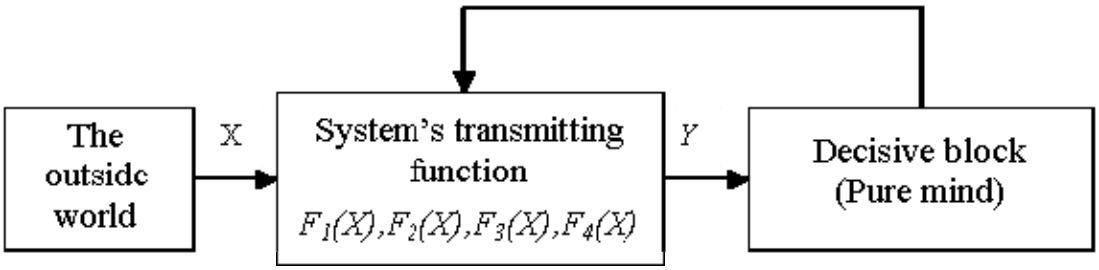


Illustration 3. Introduction of the conception of a transmitting function of the systems without taking into consideration the system response

The information (casual signal) X from the outside world comes in transmitting function of the system (an information channel of communication), having passed through transmitting function of the system and having deformed in it, gets in decisive block which works by the internal rules. The outside world is being perceived by the decisive block of the system only through transmitting function of the system and accepts it only as the information signal, which came on its entrance. Just the same way the pure mind cooperates with the outside world through the same transmitting function.

Let's consider it more in detail. The given block diagram allows to formulate a task of statistical appraisal and checking of hypotheses.

$\theta_1 = \{Y_1 = 1, Y_2 = 1, Y_3 = 1, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_2 = \{Y_1 = 1, Y_2 = 1, Y_3 = 1, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_3 = \{Y_1 = 1, Y_2 = 1, Y_3 = 0, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_4 = \{Y_1 = 1, Y_2 = 1, Y_3 = 0, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_5 = \{Y_1 = 1, Y_2 = 0, Y_3 = 1, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\}$
$\theta_6 = \{Y_1 = 1, Y_2 = 0, Y_3 = 1, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_7 = \{Y_1 = 1, Y_2 = 0, Y_3 = 0, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_8 = \{Y_1 = 1, Y_2 = 0, Y_3 = 0, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_9 = \{Y_1 = 0, Y_2 = 1, Y_3 = 1, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_{10} = \{Y_1 = 0, Y_2 = 1, Y_3 = 1, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_{11} = \{Y_1 = 0, Y_2 = 1, Y_3 = 0, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_{12} = \{Y_1 = 0, Y_2 = 1, Y_3 = 0, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_{13} = \{Y_1 = 0, Y_2 = 0, Y_3 = 1, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_{14} = \{Y_1 = 0, Y_2 = 0, Y_3 = 1, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_{15} = \{Y_1 = 0, Y_2 = 0, Y_3 = 0, Y_4 = 1 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};$
$\theta_{16} = \{Y_1 = 0, Y_2 = 0, Y_3 = 0, Y_4 = 0 | Y_1 = F_1(X), Y_2 = F_2(X), Y_1 = F_3(X), Y_2 = F_4(X)\};.$

Hypotheses q_i refer to independent hypotheses. Transmitting function of the system can be located in one of these 16 conditions. Probabilities of occurrence of these conditions are special for each individual, it means that during carrying out of the statistical tests with rather big number of people these people will be divided into 16 marked groups according to distribution of probabilities of occurrence of hypotheses.

Result 1. Having accepted model 1.1 - 1.4, based only on the most general experimental data we automatically receive 16 various groups of people which we shall call groups with steady psychological types. Probability character of a model shows the following. The certain psychological type is not an immutable reality, and

means only the following: the response having the greatest probability in most probable though the response with smaller probabilities is also possible.

Once again we put emphasis on the fact that 16 values which are accepted by transmitting function, means only the following: during carrying out of statistical tests with big groups of people, grouping them according to the indications, formulated by K.Jung (1991, 1995), we shall receive 16 groups. It does not mean that the concrete condition of transmitting function corresponds with any psychological type. (O.Kreger, Дж. M.Tjuson, 1995). However, we can assume the following: considering passages of a signal of "pure mind" through transmitting function of the system, we receive behaviour of the concrete individual in the outside world. Availability of 16 values of transmitting function realizes 16 various types of behaviour (O.Kreger, Дж. M.Tjuson, 1995) with the certain probabilities. Only in this sense we shall correlate values of transmitting function to psychological type.

Let's calculate the average of distribution of transmitting function, hereafter we shall call it *Y =G (X)*. By definition

$$M\left[G(X)\right]=\sum_{i} i\bullet p_i; \qquad \textbf{(1)}$$

Where **p (i) -** aprioristic probabilities of hypotheses q_i. We shall note that in the theory of the information expression (1) is called average length of record. In the formula (1) *M* signifies an average of distribution of the expression, which is put in brackets. Summation is made on all possible hypotheses (values of transmitting function).

Hypotheses (conditions of transmitting function) are independent, consequently *p (i) = 1/16***.**

Substituting *p (i)* in the formula (1) we have:

$$M\left[G(X)\right]=\sum_{i} i\bullet p_i = 0\bullet\frac{1}{16}+1\bullet\frac{1}{16}...+15\bullet\frac{1}{16}=\frac{15}{2};$$

This is nothing but Miller's magic number «7».

Let's determine a dispersion of this value. Since to us the functional kind of the functions entering into transmitting function of the system is unknown, we shall confine ourselves to calculation of estimations of dispersion from above. The Population mean of a hypothesis is probability of realization of this event. It is known that the dispersion of an estimation of probability ***p*** is equal to *p (1-p) <½.* Presence of 4 independent functions in transmitting function of the system makes us multiply last number on 4. Thus, the average number of subjects remembered is 7 ± 2 .

Result 2. Having accepted assumptions 1.1 - 1.4 and having constructed the model (Illustration 4) of information interaction of the individual with the outside life, we received mathematically a strict substantiation of magic number of Miller.

In language of the theory of the information it means the following: we completely "fill" with the information transmitting function, and it means that we calculate the average of distribution. Having carried out statistical research, training fixing in mind greater number of subjects, we can determine speed of passage of the information through a liaison channel. It consists of three steps: filling of transmitting function, transmission of the information to the decisive block, pass of transmitting function to primary condition.

Result 3. These hypotheses if we shall write them down in a binary code are

1/2 of bite. Why it is difficult to say, maybe, it is nice to human nature, but all computer facilities, its architecture is constructed on the base of this concept. This value is the most convenient for operating with the information. We measure files, a memory size of computers bites, i.e. « the pure mind», the abstract notion used by us for a designation of a certain decisive device, receives the status of a certain biological COMPUTER, and it means, that within the limits of our model we can apply the powerful, constantly developing device of the theory and structurization of the COMPUTER to research the logic of functions of a brain.

Some remarks:

1. If we wanted to construct a model of interaction of two states, using our results we would act the following way: According to the law of big numbers all society in probability sense is divided into subgroups with steady values of transmitting function. There will be exactly 16 subgroups. It is necessary to take one representative from each subgroup. If we operate with designations of subgroups as binary numbers, corresponding frequencies of their occurrence will be the following:

(0000) – 1/16
(1111) – 1/16
(0001), (0010), (0100), (1000) – 1/4
(1110), (1101), (1011), (0111) – 1/4
(0011), (0110), (1100), (1010), (0101), (1001) – 3/8.

The same set will have the model of other society. To each member of elements in the model the alternative choice is given: "white" or "black". At the organization of the model of interaction of two societies it is necessary to allocate on plane: for 16 members of one society there are 32 alternative places where they can be put, the same is also fair for the second society. Alternative places we shall designate with different color (white or black). Such information game already constructed by mankind is chess.

The strange fact we have: chess and a hexadecimal notation have appeared practically simultaneously, but the hexadecimal notation as an unclaimed did not get accustomed, and appeared again only with the inversion of computers. In computers the given notation is a basis of coding of the information.

The information from the outside world comes to a brain - «a biological computer» of an individual on the first and the second signal systems. Let’s find the average distribution of conditions of transmitting function of a brain. Just as at calculation of the average distribution of transmitting function of the whole system, in language of the theory of the information it means that we completely "fill" liaison channels with the information, preliminary having lead averaging on the first and the second signal systems. In this case, the information, which got in a brain, does not depend on concrete signal system. In such statement of a problem we hope to come nearer to experimental researches of physiologists. The information in a brain is coded in the form of electric impulses, independently of a source of its origin. The first and the second signal systems according to our model form four possible conditions of transmitting function. The first and the second alarm systems are independent in probability sense and, hence, as it is known from the combination theory, the quantity of possible values is a number of rearrangements from 4 on 2, i. e. 4*3 = 12. Multiplying this number on probability of each condition of m, we receive 3. It means that the information, which arrived in a brain, can have three possible repre-

sentations. We shall remind that great I.P.Pavlov, on having introduced concepts of signal systems, proposed to allocate specific types of nervous activity on the base of prevalence of this or one another signal systems. According to this the art type was identified as a type, how having prevalence of the first signal system, cogitative, - as having prevalence of the second signal systems and average - counterbalanced according to this attribute. The fullest confirmation of our result on representation of the information which arrived to a brain through the first and the second signal systems can be found in works on neuro-linguistic programming (NLP) regarding, experimental researches on transformation and storage of the information by an individual. If we determine the average distribution of conditions in which there can be a system consisting of left and right hemispheres we shall easily receive that corresponding value is equal to 3. In NLP allocate, as it is known, there are three ways of representation of the information in a brain: video (image), audio (word) and kinestatical (sensation).

The information model constructed by us has 24 = 16 conditions corresponding to various values, accepted by functions $F_1(X)$, $F_2(X)$, $F_3(X)$, $F_4(X)$.. Probability character of the model means that for it the law of big numbers is fair, i.e. if rather big number of supervision in experiment is available, all 16 conditions of transmitting function will be presented. For the further research we shall list them. (0,0,0,0), (0,0,0,1), (0,0,1,0), (0,0,1,1), (0,1,0,0), (0,1,0,1), (0,1,1,0), (0,1,1,1), (1,0,0,0), (1,0,0,1), (1,0,1,0), (1,0,1,1), (1,1,0,0), (1,1,0,1), (1,1,1,0), (1,1,1,1). On the first place in these four number groups there is function $F_1(X)$, which corresponds with the 1-st signal system, on the second – $F_2(X)$, corresponding with the 2-nd signal system, on the third – $F_3(X)$, corresponding with the left hemisphere, on the fourth – $F_4(X)$, corresponding with the right hemisphere. **1** - means that the corresponding information channel is in a condition «extra » (with some probability p); 0 - means that the corresponding information channel is in a condition «intro » (with some probability q)

It is easy to establish biunique conformity between conditions of transmitting function and psychological types, offered by Keirsy, pursued the unique purpose to receive rather reliable way of identification of a condition of transmitting function of the system. The given conformity allows applying the transmitting function for identification of conditions. There exist a Keirsy's test (Mayer – Brigs) meant for definition of psychological portraits. Using communication between conditions of transmitting function and designations of psychological portraits, we have:

1-st position (the coding is considered from right to left) in the coding of transmitting function: «1» corresponds E, «0» - I.

The quantity of answers "Yes" divided by on total number of questions (1,8,15,22,29,36,43,50,57,64 due to the test) determines the relative frequency corresponding probability of appearance 1.

2-nd position in the coding of transmitting function: «1» - corresponds to J, «0» - P. It is determined also by summation of answers "Yes" divided by total quantity of questions. The other positions are in the coding similarly, thus, questionnaire, offered by Keirsy, got a full transparency: It is the usual statistical test. Each value is independent in the coding. Result of the test is definition of probability of appearance 1 on a corresponding place. Unintelligible and not used anywhere concept of a scale of "brightness of temperament" and values for this brightness is replaced by

application of standard procedures of the statistical analysis. For definiteness we shall give them for the 1-st position. It is known that relative frequency is not displaced solvent estimation of probability of occurrence of event. Let ***p*** is probability of that $_{Y1}$ = 1, where $_{Y1}$ - the value accepted by the first stochastic function. The dispersion of estimation, as it is known, is

$$\frac{1}{n[p(1-p)]} \le \frac{1}{4n}.$$

The confidential interval with a significance value 0,95 has borders 1.96σ≤ 0.31- for *n = 10,* and 0.21 for *n = 20.*

Method of check of statistical hypotheses:

Simple hypothesis *p*> *S.*

$$\xi_0 = \frac{1}{2}; \sigma^2 = \frac{1}{4}$$

n standard designations, we have: **.**

$$y = \frac{p^{\wedge} - \xi_0}{\sigma\sqrt{n}} = \frac{p^{\wedge} - 0.5}{2\sqrt{n}};$$

p **^-**relative frequency of occurrence of event $_{Y1}$ = 1.

The hypothesis is accepted, if ***y***> u_α**,** ∝ is a significance value. With not set significance value ∝ last formula allows to define probability of acceptance of a hypothesis. We have expression for calculation of brightness: (b) = (max - 5) *2, for the first variable and (b) = (max-10) for all other variables.

The bright individual 20 <(b) <40.

Not bright individual (b) <20.

Total brightness (b) is equal to the sum of brightness on each variable. The choice of corresponding typological group means that before us crossing of events (operation "and" in the theory of sets, instead of "or" ,as Keisry considers). Let p_1 , is an estimation of probability by the first position, p_2 , **-** on the second, p_3 , **-** on the third, p_4 ,.on the fourth.

Let's determine probability of acceptance of true psychological type of the examiner. Application of the formula of calculation of probabilities for binomial distribution in this case does not suit because positions in transmitting function are determined and cannot be rearranged. We shall designate $_{Hi}$ **-** a hypothesis of a choice of a position ***i.*** The given hypotheses are independent and form full group

$$P(H_i) = \frac{1}{4};$$

Direct calculation of probability of true definition of type is difficult. Therefore we shall act as follows:

Let *A* is the event consisting in a correct choice of type, *B* **-** probability of an erroneous choice.

Then $P(B \mid H_i);$ is a probability of a fact that in a position ***i*** there is a mistake. It is obvious that

$P(B \mid H_i) = q_i;$ **,** Where q_i - there is an additional probability for p_i.

According to the formula of full probability we have:

$$P(B)=\sum_{i=1}^{4}P(B\mid H_i)P(H_i)=\frac{1}{4}\sum_{i=1}^{4}q_i;$$

$$P(A)=1-P(B)$$

Since, finally we have

$$P(A)=1-\frac{1}{4}\sum_{i=1}^{4}q_i=\frac{1}{4}\sum_{i=1}^{4}p_i;$$

The solvent and not displaced estimation for ***P (A)*** will be a following estimation:

$$P^{/}(A)=\frac{1}{4}\sum_{i=1}^{4}p_i^{/};$$

Owing to independence of groups of questions we can determine a dispersion of last estimation:

$$D\left[P^{'}(A)\right]=\frac{1}{16}\left[M\left(p_1^{/}+p_2^{/}+p_3^{/}+p_4^{/}\right)^2\right]-\left(p_1+p_2+p_3+p_4\right)^2=$$

$$=\frac{1}{16}\left[\frac{1}{10}p_1q_1+\frac{1}{20}p_2q_2+\frac{1}{20}p_3q_3+\frac{1}{20}p_4q_4\right];$$

Since $pq <= m$,

$$D\left[P^{'}(A)\right]\leq=\frac{1}{64}\left[\frac{1}{10}+\frac{1}{20}+\frac{1}{20}+\frac{1}{20}\right]=\frac{13}{1280}=0.0101;$$

And

$$\sigma\leq 0.1;$$

With this we may consider the probability analysis of the test offered by Keirsy to be finished. It is established that it really allows determining psychological type of the individual or, that is the same, a condition of transmitting function of the system. The estimation of this probability is found as well as the dispersion, and, hence, the confidential intervals of an estimation.