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## DIFFERENT FORMS OF INTELLIGENCE MANIFESTATION AS PRECURSORS OF THE QUALITY OF LIFE

**Анотація.** У статті теоретично обґрунтовано значущість для якості життя людини рівнів сформованості в неї трьох базових форм прояву інтелекту: когнітивного, емоційного і позитивного, у термінах яких можна оцінити, як людина мислить, емоційно реагує і діє під час виконання основних життєвих задач. На вибірці 60 дорослих досліджуваних, які мають вищу освіту, встановлено, що індивідууми, які відчують порівняно більш високий рівень якості життя, при відсутності значущих відмінностей у рівнях когнітивного інтелекту, характеризуються більш високими рівнями прояву двох основних складових емоційного інтелекту і загального показника позитивного інтелекту. Обґрунтовано доцільність цілеспрямованого ознайомлення здобувачів вищої освіти із змістом різних форм прояву інтелекту і визначено деякі напрями прикладних досліджень проблеми.

**Ключові слова:** прояв інтелекту, когнітивний, емоційний, позитивний, якість життя, напрями прикладних досліджень.

**Аннотация.** В статье теоретически обоснована значимость для качества жизни человека уровней сформированности у него трех базовых форм проявления интеллекта: когнитивного, эмоционального и позитивного, в терминах которых можно оценить, как человек мыслит, эмоционально реагирует и действует при выполнении основных жизненных задач. На выборке 60 взрослых испытуемых, которые имеют высшее образование, установлено, что индивидуумы, ощущающие сравнительно более высокий уровень качества жизни, при отсутствии значимых отличий в уровнях когнитивного интеллекта характеризуются более высокими уровнями проявления двух основных составляющих эмоционального интеллекта и общего показателя позитивного интеллекта. Обосновано целесообразность целенаправленного ознакомления претендентов на получение высшего образования с содержанием разных форм проявления интеллекта и определены некоторые направления прикладных исследований проблемы.

**Ключевые слова:** проявления интеллекта, когнитивный, эмоциональный, позитивный, качество жизни, перспективы прикладных исследований.

**Problem identification.** The problem of the role of intelligence manifestations in determining the individual's quality of life attracted the attention of psychologists comparatively recently (at the end of the XX century), when in addition to the concept of the "general intelligence" there appeared two new terminological collocations: 1) *emotional intelligence* (conceptualized in the 90-ties of the XX-th century by American psychologists John Mayer and Peter Salovey (Mayer, Salovey, 1993) and actively popularized by Daniel Goleman (Goleman, 1995), particularly in his book "Working with Emotional intelligence", published in 1998 (Goleman, 1998); and 2) "*positive intelligence*", which appeared first in 2012-2016 in the publications of American psychologist Shirzad Chamine

(Chamine, 2012). In 2017 the monograph entitled “Positive Intelligence” was translated literally into the Russian language and published in Russian.

The detailed account of the state of research of those phenomena is presented in our monographs in the Ukrainian language (Nosenko, Kovriga, 2003; Nosenko, Arshava, 2019).

To sum up the major aspects of the above mentioned attempts at the conceptualization of the phenomena: “cognitive intelligence”, “emotional intelligence” and “positive intelligence”, it is worthwhile to begin with the account of the evolution of investigations related to the role of the cognitive and emotional intelligence in enhancing the quality of life (Nosenko, Arshava, 2019).

**The meaning and the functions of the cognitive and emotional intelligences.** The concept “cognitive intelligence”, if to use this terminological collocation for comparing its meaning with other related collocations – “emotional intelligence” and “positive intelligence”, had quite a lengthy history of investigation, summed up in the well-known monograph by M. Smulson (Smulson, 2001).

At present the majority of the researchers conceptualize intelligence as a multiaspect phenomenon, for understanding the meaning of which it is necessary to account for at least three functions, which are ascribed to it, namely: cognitive, evaluative (emotional) and regulative. Its emotional component is even considered at that more important, than the cognitive one. The thing is, the necessary level of development of the cognitive intelligence is provided in all the civilized countries of the world by the obligatory secondary-school education. Thus, the ability to comprehend, perceive and regulate knowledge-acquisition efforts is considered to be the key precursor of the successful functioning of every human being.

The role of the mind sets in cognition and other acts of the individual functioning began to attract active concern of the scholars in the field of intelligence only in the 20-ties of the XX-th century. The author of the two-factor model of intelligence Ch. Spirman hypothesized that the success of any form of the intellectual activity is determined not only by the so called general intellectual ability (factor G), but also by factor S – situation. Developing this theory, he suggested using a hierarchical model of intelligence, into which the specific precursors of the individual’s cognitive efforts and situational aspects were included. In the long run the idea of the “multiple intelligences” appeared which presupposed such ramifications of the intellectual abilities, as: linguistic, mathematical, technical, etc.

It was stated, that intelligence does not depend on the personality traits and does not include such personality characteristic features, as motivation, interests or the level of anxiety and the like. This theory was subjected to criticism and L. Terstone was the first who stated that human intelligence is the mechanism of regulation of the both: the mental and the behavioral activity of the human being, but not only the mechanism of information processing. Nevertheless the theory of “Multiple intelligences” was also subjected to criticism later on because of the so-called “paradoxes” of the intelligence, investigated and thoroughly analyzed by M. Kholodnaya in the second edition of her monograph, published in 2002

(Kholodnaya, 2002). The notions of the so called “fluid” and “crystallized” forms of intelligence manifestations have quite substantially extended the understanding of the meaning of the cognitive intelligence. To make the description of the “state of the art” in the scientific investigations of intelligence complete, it is worthwhile mentioning the monograph by H. Gardner (Gardner, 2000).

In the recent publication of E. Nosenko in co-authorship with A. Chetverick-Burchack (Chetverick-Burchack & Nosenko, 2016) the role of the emotional intelligence as a factor that stimulates the satisfaction of the individual with oneself as the subject of pursuing life tasks is illustrated by many examples of the so called “not merely cognitive” activities of the individual, which are aimed at knowledge acquisition. P. Bar-On suggested in this connection the possibility to conceptualize emotional intelligence as a sum of all the “*non-cognitive*” abilities and competences, which allow the individual to successfully cope with various life tasks. He singled out five spheres of competence manifestations, which other researchers (Lyusin, 2004; Zeidner, Matthews & Roberts, 2009) have summed up as follows.

1. Self-knowledge: comprehension of one’s own emotions, beliefs in self-efficacy, self-respect, self-control, independence.
2. The competences displayed in the inter-personal communication: empathy, social responsibility.
3. The ability of adaptation: different strategies of coping with various life problems.
4. Impulsivity control.
5. Optimism and feeling of happiness.

On the basis of this model a special questionnaire EQ-1 was developed for assessing emotional intelligence (in addition to the existing IQ test).

Since the notion of the so called “positive intelligence” is the least developed and might appear even controversial at times, it will be analyzed in more detail below.

**The role of the positive intelligence in achieving the quality of life.** The phenomenon of the positive intelligence has been defined in the monograph of Sh. Chamine (Chamine, 2012). The author has developed a special questionnaire with the help of which, as he claims, it is possible to assess the manifestation of the state of “positive self-consciousness and readiness to regulate one’s behavior” (Chamine, 2017).

The so called positive intelligence quotient (PQ) is assessed as the ratio of the duration of time in the course of which the individual can “function positively i.e. feel satisfaction with oneself vs. the duration of time during which the individual is not satisfied with oneself”.

The above mentioned “positive quotient - PQ” is calculated in percents (from 0 to 100) and is claimed to reflect the individual’s “awareness” of having the self-efficacy potential and feeling of self-satisfaction.

The empirical data summarized by Sh. Chamine as to the role of the positive intelligence (conceptualized and assessed as mentioned above) demonstrate the stable positive relationships between the levels of PQ and the individual’s self-

satisfaction. These relationships hold true of various spheres of life activity of the individual.

The total number of subjects who participated in the research, generalized by Sh. Chamine, exceeded 275000 respondents. On the basis of the available empirical data the following observations as to the important role of this form of intelligence in human functioning were made. For instance, the author of the monograph mentions that the individuals with comparatively higher levels of the positive intelligence are characterized by higher professional achievements, enjoy better health, display higher levels of the social activity, maintain friendly relationships with their colleagues and are characterized by creativity. A very important finding, in our opinion, concerns the observation as to the lower level of the professional burnout, experienced by the individuals with higher levels of the positive intelligence, as well as self-satisfaction and subjective well-being. In this light it is worthwhile analyzing the psychological predispositions which stimulate some individuals to experience the so called “wisdom perspective” in their functioning and other individuals – to resort to the unproductive tendency of using the conditioned reflexes which survived since childhood.

The wisdom perspective is reflected in the following forms of predispositions or positive “mind sets”.

1. The mind set to *empathize*, i.e. the readiness to manifest empathy both toward oneself and toward other people.

2. The predisposition to *explore*. i.e. to display the attitude to the situation with deep interest (as to some object of investigation).

3. The predisposition to *innovate* – readiness to deal with problems, that the individual is confronted with, creatively and seek their solutions.

4. The predisposition to *navigate* i.e. to control problems in accordance with one's own values and aims of life.

5. The predisposition to *activate* i.e. to direct one's intentions toward achieving favourable results.

Alongside with the above mentioned positive mind sets performing the function of “driving forces” in the individual's behavior, the author of the monograph has singled out nine unfavourable fixed predispositions, figuratively described as “saboteurs”, the origin of which is rooted in the defense mechanisms, many of which have survived since childhood.

One of the most harmful mind sets of this type is characterized by the author as the “*Judge*”. It is manifested in the form of the constant seeking in one's own behavior and in the behavior of other people certain drawbacks.

Another negative mind set is called “*Avoider*”. It prevents the individual from the active efforts to solve any difficulties that may arise in life. The individual avoids the solution of the complicated tasks and conflicts, tends to procrastinate and, in the long run, might loose many important opportunities in life. No wonder that this mind set is likely to result in the so called “self-handicapping” behavior, which lately attracted the attention of psychologists, both foreign and native (Nosenko E., Arshava I. & Nosenko D., 2014; Nosenko E. & Nosenko D., 2017).

The unfavourable mind set of the type “*Controller*” determines the tendency of the individual to control each and every situation and the behavior of other people. In case of the inability to achieve a desirable level of control the individual, striving to this line of behavior, begins to experience anxiety and other negative emotions and feelings.

The mind set of “*hyper-achievement*” characterizes the individual striving to the constant success. Achievement motivation becomes for the individuals, striving to hyper-achievements, the only precursor of the self-respect and positive self-attitude. In case of failures the individual suffers of dissatisfaction and other negative emotions.

The mind set of the type “*hyper-rational*” is also considered to be negative. It might cause intolerance to emotions of other people and even disrespect toward them.

The mind set “*Pleaser*” is also characterized as negative. The individual, who tries to please each and everybody, might stimulate by one’s behavior disrespect, suspicion of insincerity and other negative attitudes.

The mind set of “*Restlessness*” prevents the individual from being satisfied with the activity which one performs at the moment.

The mind set of a “*Stickler*” is pertinent to the individual who is characterized by a non-adaptive perfectionism and waists one’s energy striving to put things in order, where the order has already been achieved.

And, at last, the mind set of a “*Victim*” is manifested, as a rule, by demonstrating one’s negative emotions and other inadequate forms of behavior, aimed at stimulating the sympathy of other people and gain their support. But this form of behavior, on the contrary, might result, in disapproval of the surrounding people.

**Empirical research: hypothesis, methods and materials.** We have substantiated the following hypothesis as to the role of different forms of intelligence manifestations in achieving the quality of life.

Since the quality of life is operationalized, as is known, in terms of such concepts, as: comprehension of the *meaning of life*, active *involvement* of the individual into the process of pursuing the meaning of life, and *satisfaction* with life, we hypothesized that all the three forms of intelligence manifestation, chosen for this research, are quite relevant for enabling the individual to achieve high quality of life. Thanks to the cognitive intelligence the individual is likely to *comprehend* more clearly the aim and meaning of life.

Higher is the level of the development of emotional intelligence, the more actively the individual is *involved* into the activity, oriented toward the achievement of the aim of one’s life, and successfully interacts with other people.

The hypothesis as to the role of the positive intelligence in achieving the quality of life is based on the assumption of the role of such mind sets as the tendency to activate, explore, innovate, empathize, which constitute the wisdom perspective, in the successful functioning of the mature personality, capable to overcome the unfavourable mind sets, described as “saboteurs” by Sh. Chamine.

The empirical research with a minimally sufficient sample of subjects: 60 grown up educated people, having professional higher education and a satisfying employment, has proved the exceptional role of the high levels of the positive and emotional intelligence in the quality of life.

The psychodiagnostic techniques chosen for the empirical research included: the appropriate questionnaires for assessing cognitive, emotional and positive intelligence levels, namely: a short test to assess IQ by V.M. Buzin; EQ test by H. Hall; PQ – Score by Sh. Chamine; “Purpose-in-Life Test” by J. Crumbaugh and L. Maholic (adapted by D. Leontiev); Life Satisfaction Test by Neugarten, adapted by N. Panina, as well as the Test of Hardiness by S. Muddy (adapted by D. Leontiev and O. Raskazova).

The first result worthwhile mentioning is that the number of subjects who experienced comparatively higher level of the quality of life appeared to be thrice smaller than those the number of subjects, who experience the lower level of the Quality of Life (19 vs. 41). On two samples, singled out by cluster analysis, it has been found that between the chosen groups there were no significant differences in the levels of their *cognitive intelligence*, but there were significant differences between the groups with higher and lower levels of the quality of life, on two key scales of emotional intelligence, namely: self-motivation (at  $p < 0.01$ ) and the control of emotions of other people (at  $p < 0.01$ ). The same groups of subjects significantly differed on their PQ score (see table 1).

Table 1

**Differences between the positive intelligence scores in the groups of subjects with different levels of the quality of life**

|                  | Different levels of the quality life |                   | U-Mann-Whitney | p    |
|------------------|--------------------------------------|-------------------|----------------|------|
|                  | Group 1<br>(N=19)                    | Group 2<br>(N=41) |                |      |
| General PQ Score | 68,16                                | 48,17             | 203            | 0,01 |

Having found intergroup differences in the overall values of the quality of life, we analyzed the differences in the values of different forms of intelligence manifestations.

It appeared that the most indicative scales for assessing differences in the emotional intelligence between the groups with different levels of the quality of life are the scales of *self-attitude* and the scale of the *control of emotions of other people*. The higher is the quality of life the higher are the scores of those two scales of emotional intelligence and positive intelligence.

Thus, the results of the exploratory empirical study suggest the necessity of the modification of the hypothesis as to the equal role of the different forms of intelligence as the likely predictors of the quality of life. It is the positive intelligence that appears to determine the quality of life of the individual more significantly than other forms of intelligence: cognitive and emotional. There is no wonder in the light that the positive intelligence determines how the individual acts in the course of achieving life goals, but not just thinks and feels.

**Conclusion.** The prospects of the further research are related, first of all, to the identification of those positive mind sets of the individuals, which are most indicative of the quality of life, and the “saboteurs” (using the term of Sh. Chamine), that are most detrimental for achieving success in life and the feeling of life satisfaction. We also consider the possibilities of continuing the research of the role of different forms of intelligence manifestation in the *family* life. There are preliminary empirical findings that demonstrate the role of the positive intelligence of the parents as a predictor of more favourable parent-child relationships.

Further theoretical efforts are necessary for identifying the particular life situations in which the individuals should rely on different forms of intelligence to increase their performance efficacy. Thus, the prospects of the applied research seem to be quite diverse.

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**I. Arshava, E. Nosenko**

**Different forms of intelligence manifestation as precursors of the quality of life**

**Background.** Cognitive intelligence has been studied extensively in the context of the quality of life, probably in view of the significance of the secondary level education, foreseen for each new younger generation in all the civilized countries of the world. Other forms of intelligence manifestation, described in this paper, namely: emotional and positive have not yet been, as far as we could gather, in the context dealt with in the paper. There is no wonder: the conceptualized of emotional intelligence appeared in psychology only in the 90-ies of the XX-th century and the positive intelligence was conceptualized in personality research in 2012-2016. Both new forms of intelligence manifestation are also claimed to be predictive of the quality of life in view of their meaning, but have not yet been studied comparatively.

The **objective** of this paper is to define the comparative significance of the levels of different forms of intelligence in achieving the major life goals by the grown up educated people.

**Method.** Using the questionnaires designed for assessing all the three forms of intelligence, as well as the Quality of Life Assessment Scale and Life Satisfaction Test, we performed cluster analysis (K-means algorithm) of the empirical data gathered to assess which forms intelligence are more predictive of the quality of life.

The **sample** included grown up individuals, professionals with higher education, permanently employed in accordance with their education.

**Results.** It appeared that the two opposite subgroups, into which the sample was split on the comparatively higher and lower levels of the three forms of intelligence and the quality of life, did not significantly differ on the levels of the cognitive intelligence attained, but did differ statistically significantly on two subscales of EQ (self-attitude and control of emotions of others) and on the overall value of the positive intelligence.

**Conclusion.** Positive intelligence seems to be most predictive personality precursor of the quality of life, as well as two subscales of emotional intelligence. Further research is desirable for clarifying, which components of the so-called “wisdom perspective” of the positive intelligence are likely to be most predictive of the quality of life and which “saboteurs” (using the terminology of the author of the positive intelligence theory Sh. Chamine) are most detrimental for the quality of life and whether there exist any intercultural difference in that respect.

**Keywords:** intelligence manifestation, cognitive, emotional, positive, quality of life, field of applied research.