

THE ABILITY TO JUDGE AND ITS PLACE IN THE STRUCTURE OF GIFTEDNESS VIEWED AS A FUNCTIONAL SYSTEM

Natalya A. Belskaya

Department of Giftedness Diagnostics

Institute of Gifted Child of NAPS

Ukraine, Kiev

E-mail: nybelsona@mail.ru

Abstract

This article explores judgmental function of psyche as one of the most significant and non-compensatory cognitive factors of giftedness, which is seen as a functional system. An attempt was made to prove that creative and intellectual success of a gifted person is highly determined by his or her ability to effectively solve problem of antinomy of judgment itself, which exists in the discrepancy between cognition of objective valuable features of an object, and subjective judgment – attribution – of valuable features of an object. A key role in solution of this problem belongs to an individualized for each person set of judgmental basis, which highest level of formation is known as *an ideal etalon*. Considering this, we suggest seeing a gifted person also as an active carrier of “ideal etalons”. A thesis is proposed, according to which a creative activity of a gifted person is nothing but “work with an ideal”, which is an individualized, unique explication of an ideal to the external world with the help of means available to an individual.

Key words: giftedness, functional system, judgment, judgmental basis, preference criteria, ideal etalons, critical thinking.

Single attempts to study talent as a functional system have already been made in psychology [1]. However, they were associated only with the classical psycho-physiological aspect of giftedness, where it was described as “a peculiar combination of abilities on which a possibility of successful performance depends” [2, p. 17]. At the same time this “combination of abilities” implies, above all, an ability to compensate one function with the others. However, if giftedness is to be considered a functional system, it should be recognized that in

this framework there is one ability that cannot be compensated under any circumstances. This is an ability to judge.

Let us recollect that according to the concept of functional systems, developed by P. Anokhin [3], the focal mechanism of any functional system is the “acceptor of action results” which is a foresight model (expected outcome) of the future results matched to the real results of the taken actions. The acceptor is, therefore, functioning only during judgmental activity of the subject (both unconscious and conscious, depending on the type and level of performed activities).

Thus, judgment appears to be an autonomous and significant function of the psyche, closely related to the reflection and regulation of human functioning, but it is not limited or identical to it.

According to N. Baturin, neither classical nor modern psychology studies judgment. “... Not a single psychology textbook has a sub-paragraph devoted to the judgment...” [4, p. 82]. He also draws attention to the absence of the relevant articles in all domestic psychological dictionaries.

Philosophers seem to have studied this topic more thoroughly. According to N. Baturin [5], results generalization of the analysis of this issue in philosophy allowed to identify the following functions of the judgment as they were indicated by the majority of philosophers: 1/ reflection (cognition) of the valuable properties or values in general, and 2/ expression of person’s subjective relation to reality, 3/ regulation of behavior and practical actions.

This work will study two first functions which tend to be mutually exclusive¹.

¹ The latter function is not objected by any of the opponents. It means that "ordinary" perception of reality is not sufficient to organize behavior and actions. According to B. Kyslov, "... The knowledge gained in a non-judgmental way cannot be applied to practice", since a person has to set the harmful (useless) apart from the useful, to make a choice between them based on the needs, goals, norms, ideals, i.e. to judge and to evaluate. And only after that a person can proceed to action. V. Tugarinov also supports this argument: "The core process of the world exploration by the humankind and separate individual is three-folded: knowledge – judgment - practice" (all quotes by: [5]).

However, before beginning this research, we should agree on the fundamental postulate proposed by N. Baturin, according to which on the “atomic” level our judgmental activity is represented by a separate act of evaluation which includes the following constructs: 1/ subject; 2 / object; 3 / a formation hereinafter referred to in various papers (besides "model of result " proposed by Anokhin) as “etalon”, “standard”, “norm”, “criterion”, “ideal”, “judgmental basis”, 4/ the process of comparing an object to a judgmental basis; 5/ reflection in some form of the evaluation outcome in judgment [5].

Since the accuracy and adequacy of judgment is a (interim) goal of a judging subject, *judgmental basis* becomes the most important: invalid choice automatically reduces or impairs the quality of activities which require judgment, as well as the quality of reasonable (adequate, adaptive) behavior in general. The latter indicates unproductive performance of the third "regulatory" function of judgment.

Considering subject’s behavior from the corporal point of view, when meeting biological needs on the vital functioning level, judgment bears automatic nature due to the *innate preconception of the desired result model*.

In the process of socialization an individual forms specific human needs and motivations, in particular, a need for cognition and creative self-actualization. However, the reverse side of individual’s “humanization” was the loss of the protective force of “biological imperative” that provided necessary set of behavioral programs and reactions. This resulted in an inexhaustible variety of errors, nonoptimal (approximate) low-quality decisions (both in private, creative and professional lives), because a person facing a necessity to independently form (or choose from existing) judgmental criteria (and self-esteem criteria) often fails.

Dependence of the accurate decision – besides the other factors – on preceding accurate judgment is rather straightforward, so it is logical to assume

that capability for judgment makes a significant contribution to any extraordinary achievement, which indicates *giftedness* of the authoring person.

A.M. Matyushkin draws specific attention to this in his concept of creative giftedness. He writes, “An integral construct of giftedness is a judgmental and evaluating function of all complex psychological structures. *All of the complex psychological structures inherently act as gauges, or standards, according to which a person judges the outer world, other people and him/herself...*

...Aristotle defined a person as the gauge for all things. His judgments are expressed in emotional standards which define aesthetic and moral preferences, as well as in perceptual and intellectual judgments that determine the degree of thought relevance or validity. *Based on this judgment the choices and decisions are made.* ...An ability to judge includes an ability of comprehending own ideas and other people's thoughts, actions and deeds. *Ability to judge provides possibility of self-sufficiency, self-control, and confidence of a gifted, creative child in himself, in his abilities, in his decisions, which determines his independence, non-conformism, and many other intellectual and personal qualities*”. [6, p.32].¹

It should be noted that without resorting to the concept of functional systems and related terminology, A. Matyushkin actually drew attention to the "acceptor of action results" as a particularly important mechanism for realization of giftedness, and suggested that judgmental processes (i.e., comparison, matching) dominate in the structure of creative activity and determine success of this activity. This brings us back to the question of the structure of a judgmental act, an exceptional role in which, for no doubt, belongs to the *judgmental basis or standard*.

¹ Curiously enough, this particular piece of A.Matyushkin's work is one of the most cited in psychological literature on giftedness, while "this integral element of giftedness" still receives virtually no attention from psychologists. However, it still remains unproved, neither theoretically nor experimentally, why judgmental activity is so important in the performance of a gifted person; how it contributes to "providing" him with such important personal qualities as self-reliance, confidence, non-conformism, etc.

In reality, a gifted person faces the problem of the “standard” twice.

Actually, it’s still early to talk about the “problem” in the first case, when judgmental function is activated, *reflecting a relation of a subject to reality*. Here we talk about so-called “cognitive resonance” (artificial provoking of which was thoroughly studied by J. Renzulli and other researchers of the giftedness phenomenon in the American school of psychology [7]). The essence of this psychological fact lies in *detection of correspondence* between subject's own personality and semantic substance of a certain object area or problem. M. Kholodna correctly underlines that this "discovery" is directly related to the functioning of specific system regulator of person’s relations to the world [8]. However, a term she coined to refer to this factor (“the structure of intellectual criteria”) cannot be considered very appropriate, as this “structure” is not fully intellectual: first of all, it rests upon the formations which are of emotional and irrational nature (feelings, emotions, preferences). *Preferences* apparently act as a dominant of this system, and emotional experiences signal compliance or non-compliance with this dominant. Moreover, preferences usually *are not a subject to person’s reflection* (analysis, criticism) and are virtually not dependent on the experience (experience just makes them explicit).

The first, random or fatal, meeting with an object area that activates implicit senses (accompanied by corresponding complex emotional reaction involving the experience of interest, capture, dedication, general psychophysiological agitation) becomes the starting point for subsequent creative work of the person.

These very implicit preferences, genesis of which may or may not be linked to the *nature and quality of person’s socialization*, serve as a system of primary standards. Projecting every new object (or object area) into the framework of this system, a person makes (involuntary, unconsciously) a judgment about the object. Positive emotional response, expressed by a pang of interest, signals subjective importance of the object, which indicates either

attribution or discovering by a particular individual personal value of the subject. This confirms the following ideas of N.Baturin. First of all, phylogenetically any judgment has a purely affective basis; and secondly, “judgment in the narrow sense of the word” is associated with the reflection of the relations which belong to subject-object or subject-subject type and are specific to reflect a special type of relations: relations connected with needs or values. The latter are directly related to person’s internal world, with the system of its own needs, interests, and preferences. This brings us back to the eternal axiology theme about the relation between judgment and values.

According to a digression of N. Baturin in axiology, antipodean perspectives can be found here. According to the first of them, which originates from the ancient Greek philosophers, "the essence of any judgment lies in recognition of the objective existence of the value, which is inherent in the nature of the object and does not depend on the relation to a person or on his judgment.

It is assumed that the value is cognized through feelings of pleasure and pain (or through judgment based on those feelings), or through judgment seen as a way of cognitive exploration. That means that judgment plays a role of a special analyzer that reflects objective properties of objects and phenomena [5].

The main counter-argument against this is a statement that “judgments about the same object are different in different people, as well as judgments of the same person in different state of mind or in different periods of time”. On this counter-arguments rests oppositional point of view, according to which "the world is free from values, and only a person attributes meaning and sense to it, based on his/her perceptions and preferences” [5].

From our point of view, these two approaches are not contradictory.

On the first stage of specifically human exploration activity (which is not related to search for food or sexual partner) the intrinsic person’s selectivity of reflection manifests itself via “*attribution*” of value properties to some objects of

the outer reality. (Perhaps, a more accurate perspective on this issue is suggested by N. Baturin who claims that a person "discovers value properties", which in reality is an impartial property of the object, existing unconditionally, but implicitly as long as a person has no need for this specific attribute. For us, it is more important that in this case the structure of judgmental action is dominated by the *person*, "led" by his subjectivity, and *translating* it outside, and therefore, attributing value properties to the surrounding world, rather than "extracting" them from it).

Clearly, this "attribution", not caused by biological nature of a human, is not only unrelated to the need of self-preservation and preservation of the species, but also under certain conditions might lead to death of a person. On the other hand, it certainly is not random and arbitrary, since a person is *not free* to choose his favorite objects, and to assess them as "valuable". This "choice" is a more or less hard-driven system of preferences, which is characterized by a certain degree of structure, formation, *completeness*. (The question of what kind of needs are reflected by a particular preference, and whether it reflects needs at all, is not considered in this paper). The higher the level of development, the more accurate the system of criteria and standards is, on the basis of which a person judges the outer world.

This is particularly important because, as noted by N. Leites [9], it is typical for a gifted individual (and it plays the most important role in predicting future performance) to achieve earlier, compared to peers, *self-determination*, which is manifested by an early, long-term and deep interest to some activity or object area. On the other hand, such an early and accurate orientation-judgment in the objective world (finding some (in)consistency between himself and the object) is possible only when preferences are formed at such level, when they already have the character of "mature standard", i.e., are most ready to "scanning" and their own explication.

This level makes preference a kind of *imperative program* that enables a child both to earlier determine the type of creative self-actualization and be longer “captured” by this (favorite, “native”) object, and achieve significant success in transforming ideas into a result close to ideal.

The abovementioned system of “preference criteria”, which is inherent to some extent to each person, has in case of a gifted person qualitatively different substance. Besides, it is characterized by greater strength and stability of its *influence on person’s behavior*. In particular, one of its manifestations is a high level of person’s resistance to those influences of the outside world that he/she perceives as inadequate to his/her personality and associated perceptions. We can talk about person’s “wiring” for *the motion of experience from the inside - out (self-translation, self-transcendence)*, opposing counter-flow of information (from the outside - in), which results in a pronounced selectivity of perceptions or highly subjective interpretation of the perceived (*hyper-apperception phenomenon*, which might under unfavorable circumstances develop into one of the psychoticism symptoms).

Judgmental activity becomes qualitatively different on the second stage, when a person has already defined an object area of his/her interest, and begins to explore or creatively interact with it. Obviously, an emphasis in the structure of judgmental activity shifts from a person *to an object*, that’s why preferences, emotional and irrational by nature, and sensations not only lose their significance, but also acquire a character of a factor inhibiting and distorting cognition.

Leaving aside personal-motivational component of creativity (which certainly is a systemic factor in integral functional system of giftedness) we shall study only its operational, purely cognitive components. The main ones are such cognitive operations as a highly developed divergent thinking and judgment [10].

The high importance of these two functions was stated in the works of

E. Grigorenko [by: 11], who experimentally proved that success of creative work is a synthesis of two successive – and conflicting! – stages: 1/ suggestion of hypothesis (divergent thinking) while blocking criticism, 2 / selection between proposed on the 1st stage solutions the one which is correct or best possible under the given conditions, and requires the maximum load on critical thinking and judgment.

Weakness or failure of at least one of the mental operations involved here leads to a certain imbalance between the “divergence” and judgment, which dramatically reduces possibility of development a high-quality solution to any problem. This happens because, in one case (dominance of “divergence”) a solution is very likely to be frilly, extravagant, essentially unfeasible (“non-valuable”), indicating a blurring border between creativity and psychoticism, and in the other case (dominance of judgment) a valuable solution can originate only from the idea of a more “divergent” individual, which in reality makes the author of this solution only a co-author.

Shifting emphasis in the structure of judgmental activity from a subject to an object indicates that selection (assessment) of the optimal solutions suggested on the stage of ideas generation is “guided” by a new judgmental basis, namely the *truthfulness*, which is compliance of the solution with some objectivity (or ideal model of creative idea). This, in turn, besides the need to maximize critical thinking, makes the explorer (creator) decide on the criteria of truth.

As for critical thinking, it must have been most clearly defined by B. Beyer, as “... a way to assess authenticity, value or accuracy of things” (quote by: [12]).

Although the tendency of many psychologists to identify judgment and critical thinking is not a fundamental mistake, it makes sense to clarify: critical thinking is just a means, while judgment is a purpose, and the quality of this kind of thinking will have a direct impact on the quality of judgment. Without thorough analysis of all critical thinking principles in the framework of this

paper, it should be noted that one of them almost completely captures the meaning of truthfulness criterion, via requirement for *logical consistency and coherence*. However, logical criteria of truth are rather formal and negative in nature (i.e., they indicate fallacy of theoretical concepts, rather than their truthfulness), therefore, are necessary, but not sufficient (as well as reliance only on critical thinking).

Since experience, as the most reliable and indisputable criterion of truth, inevitably “lags behind” person’s anticipatory reflection of reality, it cannot always be used to judge ideas (solutions, hypotheses), and therefore, the greatest weight is put on theoretical criteria of truthfulness, which reflect archetypical standards of thinking mankind, in particular the criterion of “simplicity, beauty and symmetry”.

This criterion played a huge role in the discoveries of the great physicists. Thus P. Dirac said about the general theory of relativity of Einstein: “The main method that guided him was the desire to express the law of gravity in the most elegant mathematical form. This very intention led him to the concept of the space warp... The main power of Einstein's gravity theory lies in its exceptional intrinsic mathematical beauty. In turn, Einstein himself said: “In scientific thinking there is always an element of poetry. Real science and real music require a uniform thought process. Imagination is more important than knowledge” (all quotes by: [12]). About the work of Max Planck Einstein spoke as follows: “... The requirement of artistry is one of the main springs of his work” “ Planck's book is a clear and consistent introduction to the problem of radiation, reading which delivers even “dedicated” great aesthetic satisfaction”. “ About the work of Niels Bohr: “... it is - the highest musicality in realm of thoughts” (quote by: [14]).

This brings us to the earlier discussed axiology statement that "the essence of judgment lies in recognition of existence of an objective value, which is inherent in the nature of an object and does not depend on the relation to a

person or his judgment", i.e. being and knowledge are originally aesthetic, and only by judging a person perceives it. Therefore, the results of N. Baturin's study are not accidental. He suggests that most researchers are inclined to interpret judgment as a means to reflect those value-related properties of the object, "which are *not accessible by any other form of cognition*, except for judgment" [4, p. 86]. This means that efficiency (verifiability) of judgment is directly determined not only by availability of standards, but *ideal standards*, i.e. standards that reflect the idea of perfection which vague sensation is not foreign to every person.

From our point of view, uniqueness that marks a personality gifted lies in the fact that he/she is *an active carrier* (rather than a passive consumer) of high, versatile and advanced standards or "*ideal standards*". In this sense the creative activity of a gifted personality is indeed a "work with the ideal" (V. Druzhinin, A. Matyushkin). However, the core is not about "the creation of the ideal", as suggested by the authors above, since the *ideal is set and perfect*, but its individualized, unique explication, "roll-up" to the outer world by means available to a person. This very standard stimulates and awakens a need for perfection (of the object, subject, world, and subject's relations with the world), aspiration for it, and everlasting dissatisfaction (since the ideal is unattainable) with the available results, which leads to further creative research activity. A convincing argument in favor of this thesis is a repeatedly noted fact of pronounced *perfectionism*, typical for gifted individuals (Edison: "Worry is a frustration, and dissatisfaction is a primary condition of progress. Show me a completely satisfied man, and I'll show you a misfit").

It should be noted that not only a desire for explication of the ultimate ideal is common for all gifted individuals, but also the ideal itself seems to be really versatile, as it was assumed by ancient Greeks, including characteristics of aesthetic, ethic and scientific elements which form the desired "ideal fusion" known as an "Absolute Harmony". Thus, the picture of the world, created by

scientists at first meets requirements of aesthetics, then ethics, which is supported by the experience of prominent scientists who came to conclusion of the God's existence and the necessity (not just the desirability) of 10 Commandments. A creative product of an artist meets the requirements of scientific logic ("verified by algebra") and catharsis associated with the moral aspect of human existence, etc.

Despite the fact that, theoretically, each person is a carrier of the ideal and, consequently, a potential creator, in reality, genesis of the studied type of personality is quite rare. If we do not attribute this to fatal-mystical causes related to categories of "destiny", "fate", and "being chosen" ("many are called, few are chosen"), the reasons for this should be looked for in the *predetermined structure* of the society, which, thanks to a hidden mechanisms of global systems of self-regulation, does not allow appearance of too many "creators", which might be dangerous for its well-being (e.g., breaking the optimal rate of progress, or shifting the balance between radical and conservative poles of the society to the direction of the first).

In turn, non-gifted individuals are also carriers of certain standards, which are rather stereotyped, and according to which they organize their everyday and professional life, determined by bio-social motivation with its distinctive types of pragmatic, utilitarian, and functional activities. Episodic exploration activity in this case is not self-sufficient and continuous, and either serves as a means to meet basic needs (including social motives of self-affirmation, prestige, status, etc.), or is "determined", external to the nature of the subject (the task of the manager, etc.) and *seizes to exist when the result is achieved*. In relation to the ideal standards, this type of personality is capable to be only a skilled expert-analyst or refined consuming esthete, both of which are not involved in the efforts aimed at creation and formation of the ideals.

Conclusion

The aim of our work was an attempt to draw attention to the problem of judgment in psychology in general, and to an ability to judge, in particular. “Relocation” or displacement of problem of judgment to the highly specialized area of psychophysics creates a “breaking point” in the continuum of research of giftedness, which does not let see a complete picture of the factors which form talent of any type. Further theoretical and experimental work on the subject aims to overcome the existing deficiency in the subject matter.

References:

1. Shadrikov V.D. *Problemy professionalnyh sposobnostey* [Problems of professional abilities]. *Psikhologicheskiy zhurnal* (The psychological magazine). 1982, vol. 3, no. 5, pp. 13-26.
2. Teplov B.M. *Problemy individualnyh razlichiy*. [Problems of individual differences]. Moscow, 1961. 536 p.
3. Anokhin P.K. *Uzlovyie voprosyi teorii funktsionalnoy sistemyi*. [Central questions of the theory of functional systems]. Moscow, 1980. 197 p.
4. Baturin N. A. *Problema otsenivaniya i otsenki v obschey psihologii*. [The problem of assessment and judgment in general psychology]. *Voprosy psikhologii* (Issues of psychology). 1989, no. 2, pp. 81-89.
5. Baturin N.A. *Otsenochnaya funktsiya psikhiki* [Judgmental function of psyche]: dis. ... Dr. psychol. Sciences,. St-Petersbur State University, 1998.
6. Matyushkin A.M. *Kontseptsiya tvorcheskoy odarennosti* [Concept of creative giftedness]. *Voprosy psikhologii* (Issues of psychology). 1989, no. 6, pp. 29-33.
7. *Odarennyie deti* [Gifted children]. Moscow, 1991. 348 p.
8. Kholodnaya M.A. *Psihologicheskie mekhanizmy intellektualnoy odarennosti* [Psychological mechanisms of intellectual giftedness]. *Voprosy psikhologii* (Issues of psychology). 1993, no.1, pp. 32-39.
9. Leytes N.S. *Vozrastnaya odarennost shkolnikov* [Giftedness of students: the aspect of age]. Moscow, 2001. 320 p.
10. Gilford Dzh. *Tri storony intellekta* [J.P. Guilford. Three components of

intelligence]. *Psikhologiya myshleniya* (Psychology of thinking). Moscow, 1965, pp. 433-456.

11. Druzhinin V.N. *Psikhologiya obschih sposobnostey* [Psychology of general abilities]. St-Petersburg, 2008. 318 p.

12. Zhigalko S.V. Ponyatie "Critical Reading" pri formirovanii navykov chteniya u buduschih inzhenerov-pedagogov [The concept of "Critical Reading" in the formation of reading habits in the future engineers-educators].
URL: http://repo.uipa.edu.ua/jspui/bitstream/123456789/1886/3/S.Zhygalko_37.pdf

(Accessed: 02.01.2014)

13. Korsukova E. Istina i zabluzhdeniya [Truth and error].
URL: http://www.0zd.ru/filosofiya/istina_i_zabluzhd (Accessed: 02.01.2014).

14. Volkenshteyn M.V. *Krasota nauki* (Beauty of science). *Nauka i zhizn* (Science and Life). 1988, no. 9, pp. 15-19.