

DOI: 10.25696/ELSYS.VC1.EN.14

DIAGNOSTICS OF CHARACTER ACCENTUATIONS IN DIFFERENT VARIANTS OF PSYCHOPHYSIOLOGICAL RESPONSES DYNAMICS

Yana Nikolaenko (nikolaenko@elsys.ru)
ELSYS Corp., St. Petersburg, Russia.

Abstract: *The article analyzes the problems of validity of existing psychological methods of diagnosis of accentuations of character; the problem of the dynamics of borderline mental states to the pathological level, including local mental disorders and behavioral disorders, the level of delinquency. The results of the diagnostics of accentuations of character obtained within the framework of traditional methods of psychological diagnostics and using the vibraimage technology are proposed for discussion. The problem of diagnostics and prevention of unlawful actions in the structure of accentuations of character in adolescents is considered.*

Keywords: *Accentuations of character, vibraimage technology, diagnostics of borderline states, conscious and unconscious attitudes, reliability and validity of test methods.*

The problem of diagnostics of borderline mental disorders is one of the central problems of psychiatry and psychology, as well as its separate branches: forensic medical examination, special and clinical psychology, etc. This issue was raised quite sharply in connection with the specification of diagnostic criteria of extreme norm of character manifestations.

Character and temperament are interrelated and depend on the physiological characteristics of the personality, on the types of higher nervous activity. This tendency is most pronounced in relation to temperament. The character and temperament of a person determine typical reactions to the relevant life situations. Temperament determines only the dynamic characteristics of the individual's behavior (the level of general mental activity, the speed of reactions, the pace of work, etc.), while character determines the conscious actions of people in accordance with their moral and ethical norms, social values, needs and interests (Batarshev A. V., 2004). Thus, despite the biological nature of the origin of the temperament, the nature and variations of its dynamics (including various boundary states) are a priority in predicting the behavior of a person and his social activity.

“Accentuation” is traditionally understood as the extreme version of the norm of manifestation of character. The term “accentuated personality” first appeared in the works of Karl Leonhard (1968): “accentuation is, in essence, the same individual traits, but having a tendency to transition to a pathological state. <...> With greater severity, they impose an imprint on the personality as such and, finally, can acquire a pathological character, destroying the structure of the personality.” In his writings, the author primarily emphasizes the characterological components, uses the term “accentuated personality”.

“Just as in appearance one person always differs from another, so the psyche of each person is different from the psyche of other people. And yet, speaking of individual

traits, we do not imagine them as an impossible number of possibilities, in addition, with a multitude of transitions: there can be no question of the infinity of unique individual traits. It is possible to put forward the following thesis: the main features that determine the individuality and character of a person are very few, but nevertheless their number cannot be considered unlimited”, K. Leonhard, 1989.

On the contrary, in the works of A. Y. Lichko, a well-known Russian psychiatrist, the term “character accentuations” is used: “Personality is a broader concept; it includes intelligence, abilities, worldview, etc. Character is considered the basis of personality, it is formed mainly in adolescence, and personality as a whole is formed in adulthood.”

The accentuation of character is, though extreme, but still a version of the mental norm, which cannot be said about psychopathy. As early as 1886, V. M. Bekhterev mentioned “transitional degrees between psychopathy and the normal state”, that “psychopathic state can be expressed in such a weak degree that under ordinary conditions it is not manifested.” In 1894, the Belgian psychiatrist Dallemagne identified, along with “desequilibres”, that is, “unbalanced” (a term in French psychiatry of the time, similar to “psychopaths”), also “desequilibrants”, i.e. “easily losing balance”. E. Kahn (1928) called such cases “discordant-normal” (quoted in A. Ye. Lichko, 1999).

P. B. Gannushkin (2007) expressed the opinion that “... since there is still disease and health as such, it must therefore be accepted that between these two forms of human existence there is a known intermediate area, a certain borderline, occupied by those states and forms that cannot be attributed either to the disease, or nevertheless to health.” Subsequently, this area was designated as “latent or compensated psychopathy”, without social disadaptation (as opposed to clinically apparent psychopathy).

The classification of A. Y. Lichko includes eleven main types of character accentuation, which can be observed in adolescence. In particular, mixed types account for about half of all explicit types of accentuation. By the nature of the combinations there are two types: intermediate and amalgamic accentuations. Intermediate types are caused by endogenous factors (genetic predisposition, etc.); amalgam types are formed as a consequence of bedding on the endogenous core of one type of traits of another type, because of improper upbringing, etc.

In the manifestation of accentuations of character, two degrees of severity are distinguished: an explicit and hidden accentuation of character. Where, explicit accentuation is characterized by the presence of pronounced traits of a certain type of character. Whereas, latent accentuation is characterized by the fact that under normal conditions, features of a certain type of character are weakly expressed or not seen at all. However, under certain circumstances (addressed to the place of least resistance) features of this type appear unusually bright. The mechanism of activation of accentuated traits is identical to the explicit accentuation (Lichko A. Ye., 1999).

In the works of Lichko, variants of the dynamics of character accentuation are also considered in detail, under the influence of various endogenous and exogenous factors. A special place is occupied by the questions of pathological dynamics of accentuated traits to various mental disorders and persistent behavioral disorders in adolescents. One of the results of the research activities of the author and his colleagues, on the basis of the Department of adolescent psychiatry of the Psychoneurological Institute named

after V. M. Bekhterev, was a Pathocharacter diagnostic questionnaire (PDQ), 1976. There are modifications to this questionnaire (Dvorschenko V. P., 2008). At the same time, the most popular (due to the simplicity of operation) is the questionnaire of Leonhard-Schmieschek and its various modifications (the questionnaire of Littmann-Schmieschek, and others). At the same time, the behavior of any teenager (especially of an accented one) is much more difficult to predict than the behavior of an adult. Character accentuations are a common phenomenon of adolescence. However, there is a certain segment of adolescents who have a higher risk of transition of character accentuation to a pathological level than their accentuated peers. This is a serious problem. Since such adolescents are a real threat to society due to the reduced resistance of the psyche to exogenous and endogenous hazards. Accordingly, the solution of the problem that arises, involves the creation of a fundamentally new type of techniques with a higher predictive value than traditional psychological tests.

In particular, the accepted division of accentuations of character in terms of the degree of expression to explicit and hidden is relatively arbitrary for a number of reasons. First, there is still no profile tool to diagnose a person's predisposition to explicit / hidden accentuation. In some tests, an attempt was made to time the maximum values on scales ("raw" points) to explicit accentuation, but the mathematical or some other criterion of latent accentuation was never defined. Secondly, the understanding of the intensity of accentuations in the polar mode (hidden or explicit), in our opinion, is simplified. Thirdly, the degree of intensity and the nature of the orientation of behavioral reactions with explicit and latent accentuations has its own individual spectrum of psychophysiological reactions, with significant variability of manifestations.

Finally, it is very difficult to diagnose the type of combination of character accentuations. The opportunity to diagnose an intermediate or amalgam type of combination of accentuation of character, at this stage of psychodiagnostic development, is limited to observation and collection of anamnesis.

The Vibraimage technology is one of the modern technologies that allows real-time tracking of the dynamics of psychophysiological reactions of a person on a number of parameters (Minkin V. A., 2007). Presumably, this technology can solve a number of problems related to the use of questionnaire diagnostic methods in psychology (Minkin V. A., Nikolaenko Y. N., 2017). In particular, the problem of the influence of the situational factor on the perception of the context of information and the problem of diagnosing the degree of expression of character accentuations in the polar mode. Vibraimage converts in real time light video image of an object into an image formed by the accumulated inter-frame difference. The respondent reads the questions from the computer monitor or laptop and answers them using a touchpad or a computer mouse. In this case, his answers are not the only criterion for assessing the predisposition to this or that type of character accentuation. The technology of vibraimage allows obtaining multidimensional dependencies of the characteristics of the psychophysiological state (PPS) and recording the change in energy and the direction of this change. The change in the energy released by a person from the initial state to another energy state is measured in kcal/min (RU 2017109920 Method for

assessing a person's psychophysiological state, 2017). If we consider the answers of the test subject as a criterion of conscious attitudes, then certainly there are unconscious attitudes. Unconscious attitudes are much less plastic than the conscious ones because they are not attached to a situational factor. The vibraimage allows you to register in real time, both conscious and unconscious "answers" to the questions of the questionnaire. This approach allows achieving greater predictive accuracy than the traditional survey method. The test results are more stable than in the traditional questionnaire because they reflect the average values between conscious and unconscious attitudes. However, these are not all the advantages of this technology. For the first time, it becomes possible to diagnose a tendency to accentuations of character not only in the polar mode of YES / NO answers, but also to trace the dynamics of the psychophysiological state, i.e. in what aspects the mechanisms for compensating for accentuated traits are manifested, and how much they are developed (the level of hypercompensation or psychological defenses).

Consider a specific example:

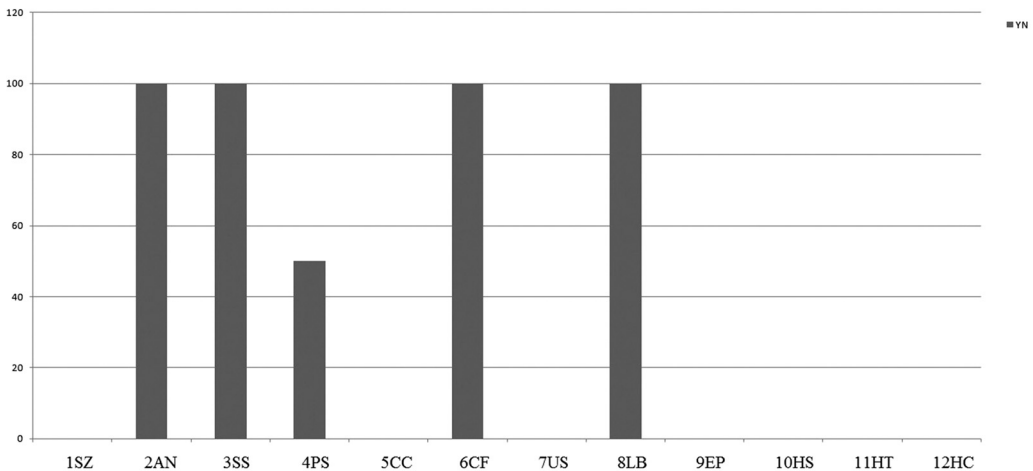


Fig. 1. Test subject K., aged 17. Conscious answers

Standard psychological questionnaires allow to register only conscious answers of the subject i.e. only with a reliance on the results of self-assessment. According to Figure 1, there is a tendency to asthenoneurotic, sensitive, conformal and labile types of accentuation equally expressed. At the same time, it is quite obvious that altogether four types of accentuation cannot be expressed in the same way in one person, regardless of the kind of questionnaire method he uses. Any type of combination of accentuations (amalgam or intermediate) implies a disproportional combination of existing accentuations of character (Lichko A. Ye., 1999). Thus, it is impossible to diagnose the hierarchical structure of the amalgam or intermediate type of combination of accentuations of character only by conscious responses of the subject.

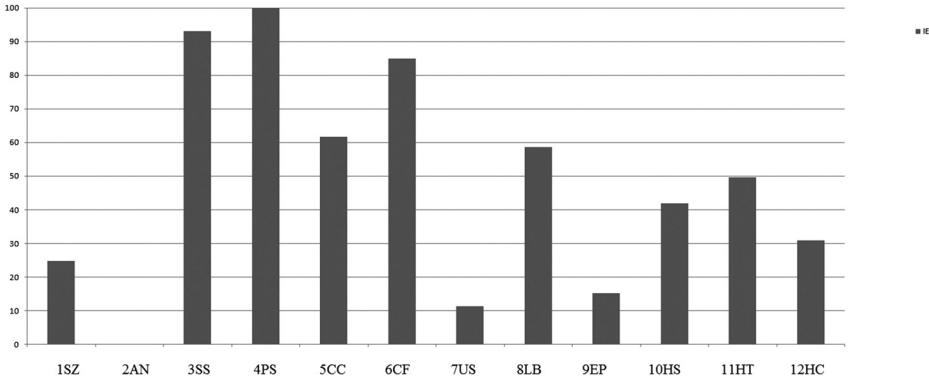


Fig. 2. Subject K., aged 17. Unconscious responses (psychophysiological reaction)

Diagnostics of accentuations of character based on the psychophysiological state (PPS) has a greater prognostic value than with a reliance only on the conscious responses of the subject, Fig. 2. With this approach to diagnostics, it is impossible to obtain two or more identical reactions, as it was done in the analysis of conscious responses. Thus, in this subject, a psychasthenic and sensitive types of character accentuation predominate.

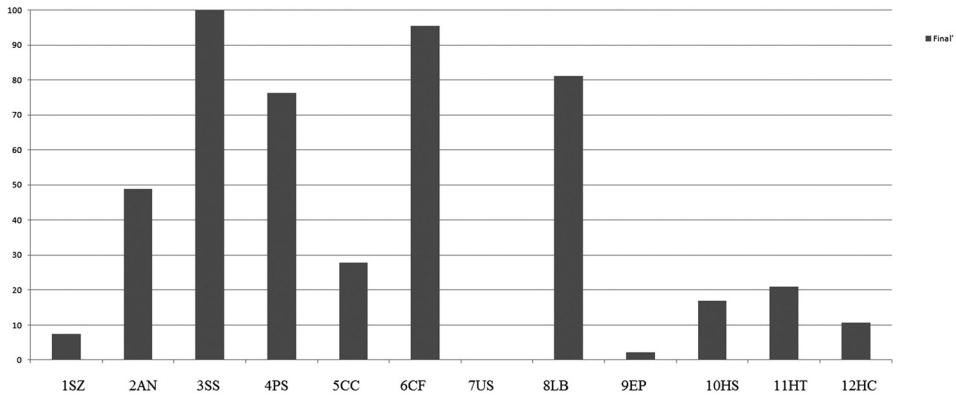


Fig. 3. Subject K., aged 17. The average profile of accentuations of character (based on the results of conscious responses and psychophysiological reactions)

The obtained averaged data, between conscious responses and unconscious attitudes (in the form of a certain dynamics of psychophysiological reactions), in our opinion, more objectively reflect the tendency to accentuations of character than just conscious answers or unconscious attitudes. According to the data presented in Figure 3, it is possible to diagnose a mixed type of accentuations of character, with a predominance of sensitive (SS) and conformal (CF) traits. The results obtained have not only diagnostic but also prognostic value. With this type of combination of accentuations of

character, there is the probability of deviant behavior. However, it can be assumed that the transition to the pathological level is tied to the defensive function of the psyche according to the sensitive type, or it is a consequence of the influence of the asocial group of peers, according to the conformal type.

Thus, it is possible to combine, within the framework of one tool, the diagnostic and prognostic functions of the dynamics of borderline states, using the example of accentuations of character. The study of accentuations of character in adolescents with the help of the vibraimage technology, in the mode of assessing conscious and unconscious responses, increases the reliability of the results obtained. There is an opportunity to differentiate the accentuated adolescents of an increased risk group for the pathological dynamics of accentuations of character to the field of mental disorders and illegal actions.

Our partners:

Currently, *ELSYS* Company together with the Russian Scientific Center for Radiology and Surgical Technologies named after Academician A. M. Granov, carry out joint studies and tests of the program on diagnostics of character accentuations (PsyAccent) to determine the compatibility between a doctor and a patient with a confirmed diagnosis of cancer. The methodology for determining such compatibility was proposed by Gnezdilov in 1995 (Gnezdilov A. V., 1995). In the case of a positive test result, the developed program and methodology can be used for medical applications and psychological research.

References:

1. *Batarshev A. V.* Diagnostics of borderline mental disorders of personality and behavior. Moscow: Publishing house of the Institute of Psychotherapy, 2004. — 320 p. (In Russ.)
2. *Gannushkin P. B.* Clinical picture of psychopathies, their statics, dynamics, systematic. Moscow: Medical Book Publ., 2007. — 321 p. (In Russ.)
3. *Gnezdilov A. V.* The Road to Calvary. St. Petersburg: Klint Publ., 1995. — 147 p. (In Russ.)
4. *Dvorschenko V. P.* Test of personality accentuations. Modified version of the method of PDQ. St. Petersburg: Rech Publ., 2004. (In Russ.)
5. *Leonhard K.* Accentuated personalities. Kiev, 1989. — 375 p. (In Russ.)
6. *Lichko A. Y.* Types of character accentuation and psychopathy in adolescents. Moscow, 1999. — 416 p. (In Russ.)
7. *Minkin V. A.* Vibraimage. St. Petersburg: Renome Publ., 2017, — 108 p. (In Russ.)
8. *Minkin V. A., Nikolaenko Y. N.* Vibraimage and multiple intelligences. St. Petersburg: Renome Publ., 2017, — 156 p. (In Russ.)
9. *Minkin V. A.* Method of assessment of psychophysiological state of a person. Patent RU 2017109920, priority 24.03.2017.