

Psychological analysis of handwriting as a subject of forensic psychological examination

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Abstract: *This article discusses the actual possibilities of psychological analysis of handwriting, taking into account modern scientific approaches. The significance of this area for law enforcement agencies is associated with the study of various handwritten texts, including the psychological analysis of the suicide note of a possible suicide.*

The use of psychological analysis of handwriting by forensic psychologists will allow diagnosing, predicting and conducting objective psychological expert research within the framework of the questions posed.

Keywords: forensic psychological examination, handwriting, graphology, signs of handwriting, mental state, suicide, frustration.

Interest in human handwriting arose in ancient times, where the great ancient Greek philosopher Plato said that handwriting is a mirror of the human soul. As part of the study of this topic, it is useful to recall the Italian scientist Baldo (1622), his treatise, where he spoke as follows: "On how writing can be used to find out the character and properties of the writer" (orig. "Trattato come da una lettera missiva si conoscano la natura e qualita dello scrittore")¹.

Various ideas about handwriting were consolidated in the term "graphology", the author of which was the Abbé Michon (1871). Based on his many years of experience, Jean-Hippolyte Michon identified some fundamental patterns of graphology, as a result of which the book "Graphology System" was written.²

Taking into account the historical development, it is necessary to note in the science of graphology the positions of some schools that were engaged in research in this direction. Thus, the graphological society in France was created in 1871, although graphology received official status only in 1901. The founders of the school of graphology in France were Jean Hippolyte Michon and Crepier-Jamin. In Germany, the problem of studying handwriting has been studied since the early

¹ Solomevich V.I., Ulasevich V.I. Handwriting and character. Minsk: Harvest, 2009. P.640.

² Aleskovsky S.Yu., Komissarova Ya.V. Fundamentals of graphology. - M.: Publishing house "Yurlitinform", 2006. P.216.

1940s. Graphology began to be included in curricula in philosophy, psychology, criminology and medicine. The Italian graphologist Girolamo Moretti developed a system of signs and unique psychologically accurate psychodiagnostic assessments. Due to the ideas of the Swiss scientist Max Pulver, the need to study symbolism in the space of a sheet of paper (the doctrine of letter zones) was introduced.

Graphology, as a system of centuries of observational and research experience covering various countries, began to claim to be considered a science. At present, handwriting analysis, taking into account the results of graphological studies, and reliance on certain patterns of handwritten text execution are widely used in Europe and Latin America. For example, nowadays in the Ministry of Justice of France graphological analysis is officially recognized even in judicial practice. In Israel graphological analysis is also used in the security services, police, army and courts (forensic graphology). And this is understandable, since each handwriting is individual and at the same time relatively stable, this makes it possible to identify certain psychological characteristics of the performer of the handwritten test and / or his signature, as well as data regarding gender and age, and, indirectly, a possible mental state in the investigation and court of interest. period. So, according to V.F. Orlova, “Undoubtedly, the positive thing in graphology is the desire to rely on the typological structures of a person developed in physiology, psychology, as well as create your own personality typification and look for its projection in handwriting”³.

Historically, handwriting has become another important scientific and practical branch that studies the individual and personality through handwriting, because the competence of a forensic handwriting specialist includes identification, diagnostic and situational tasks that directly or indirectly affect the problem of identifying a possible “unusual state” of the subject of expert research. In particular, handwriting specialists solve the following questions:

- identification - aimed at establishing the executor of the manuscript under study, resolving other issues about the presence or absence of the identity of the compared handwritings;
- diagnostic - determination of physical fatigue, an unusual psychophysiological state, the state of alcohol or drug intoxication, certain diseases, etc .;
- situational - determination of the objective situation and conditions for the execution of the manuscript (posture, unusual attitude of the performer to the letter, deliberate change in his handwriting).

Forensic handwriting experts, touching on the topic of "unusual states", are looking for the truth in the interpretation of unusual states as an atypical position of the execution of the text in space, at the same time, there is an opinion that the psychophysiological state of the writer, as unusual, refers to a number of issues that can be considered by handwriting experts⁴.

Establishment of a psychophysiological and mental (psychological) state, i.e. important for the investigation and the court, the individual psychological characteristics of the executor of the handwritten text were of interest not only to forensic handwriting experts, but also to forensic scientists. When there is a question about the "unusual state", one should examine the mental state of a person, as an individual who made decisions in a certain state. This condition can be associated either with stress, frustration, or with the mental failure of the subject. Consequently, the definition of the above state is not within the competence of a handwriting specialist, and in this matter, psychological research is indispensable. This is the leading role of an expert psychologist today in

³ Orlova V.F. Forensic handwriting diagnostics. M., 2006. P. 24.

⁴ Shkoropat E.A. Theoretical and methodological aspects of diagnosing unusual psychophysiological states of the manuscript executor by handwriting: Abstract of the thesis. ... candidate of legal sciences: 12.00.09 / Shkoropat Elena Antonovna; [Place of protection: Volgograd. acad. Ministry of Internal Affairs of Russia]. - Volgograd, 2008. – P.28.

solving issues related to both the mental state and the individual characteristics of a person who left his handwritten note under certain circumstances.⁵

This means that since the above tasks go beyond the professional competence of both handwriting experts and forensic experts, a new approach, a new tool in identifying personality traits and “unusual states” through handwriting, was increasingly required. The result of such a scientific, practical and social request was the psychological analysis of handwriting⁶ (PAH).

There is nothing fundamentally contrary to forensic science, forensic expertology, and legal psycholinguistics in this.⁷ At one time, E.F. Burinsky believed that handwriting is not only an object of identification, but also an object of diagnostic research. In his opinion, "in handwriting - the whole person, with all his physical and spiritual properties"⁸.

When to talk about a reliable, objective and truly scientific psychodiagnostic tool for researching a person through his handwritten text. Without a psychological analysis of handwriting, it is certainly difficult to determine the essential features of a person's individuality, his psychological response systems, psycho-physiological capabilities and certain psycho-emotional states that are of legal importance. As noted by A.R. Luria: “The idea that handwriting is in a certain correspondence with the individual characteristics of the writer and his current psycho-physiological state is undoubtedly absolutely correct ...”⁹.

An analysis of modern scientific literature, research positions of various scientists demonstrates a significant progress in research on the psychology of handwriting. The construction of the scientific foundation of graphological research, their combination with judicial handwriting with a general focus on identifying the psychological characteristics of a person in legally important circumstances can be traced in the works of such scientists as Y. Chernov and V.F. Engalychev. The developments of these scientists in the field of psychological analysis of handwriting enrich the psychodiagnostic tools in the work of a forensic psychologist. In addition, the psychological analysis of handwriting, based on the use of mathematical algorithms and implemented using specially designed hardware and software, reduces the weakly controlled influence of an expert on its results and ensures its objectivity.

In recent years, this toolkit has been significantly enriched with new promising methods for analyzing human behavior and studying the products of its activity¹⁰. Revealing the psychological traits of a person, it is necessary to examine the texts written by him, his handwriting and, if any, his signature. Only in this case will there be a sufficiently informative base for identifying individual personality traits that are important for creating his psychological profile or psychological portrait¹¹.

⁵ Volnenko V.N., Shipshin S.S. Study of handwriting in forensic psychological examination // Criminology. XXI Century. Materials of the All-Russian scientific-practical conference., Rostov-on-Don. 2001. P. 172-177.

⁶ Engalychev V.F., Chernov Yu.G. Psychological analysis of handwriting. Guidelines for the formalized evaluation of handwritten text. – M.: FGBU GNTs FMBTs im. A.I. Burnazyan FMBA of Russia, 2019. P.172.

⁷ Engalychev V.F. Legal psycholinguistics // Applied legal psychology: textbook for universities. M: Unity. 2001. P. 399-406.

⁸ Burinsky E.F. Forensic examination of documents. SPb., 1903. P. 189.

⁹ I quote from: Karpenko D.A., Ladilova V.M. Actual problems of substantiating the psychological examination of the speech activity of unidentified authors // Zhivaya psikhologiya. 2015. Volume 2. No. 4. P. 347.

¹⁰ Bagmet A.M., Gusev A.N., Engalychev V.F., Kravtsova G.K., Sedin V.I., Kholopova E.N. Methodology for the study of communicative behavior in order to identify psychological signs of distortion of reported information (based on video recordings of procedural and other actions): a scientific and practical guide. M.: Moscow Academy of the Investigative Committee of Russia, FGBU GNTs FMBC im. A.I. Burnazyan FMBA of Russia, 2018. P.192.

¹¹ Engalychev V.F. Informational Content of the Unknown Criminal's Behavioral Particularities // The Fifth Investigation Psychology conference. - Liverpool, Great Britain, 1998. P. 17.

According to Y. Chernov, a rather important shortcoming in solving this problem was the lack of formalization and validation procedures for the methods of psychological analysis of handwriting. However, recently this problem began to be solved within the framework of the study of PAH.

For example, studies of suicide notes of suicides conducted by various scientists have shown that, taking into account the individual psychological characteristics of the author-performer of the text, their analysis often makes it possible to identify a very specific motivation for an act.

The development of directions related to the problem of solving the diagnostic problems of forensic handwriting examination in the Republic of Uzbekistan, as well as other areas of forensic examination, is being actively studied and progressing. However, the question of the psychological content of manuscript research remains undeveloped and unresolved both from a theoretical and methodological point of view.

Taking into account world practice, in the Republic of Uzbekistan in recent years, the above trends have aroused great interest of the judiciary and operational-investigative bodies in studying the psychological state of subjects who are participants in criminal cases¹².

An example is the analysis of an expert study in relation to a subject who hanged herself on the veranda bars at home. Psychological analysis was carried out with the help of a retrospective analysis of the materials of the criminal case.

The following is known from the case file: a woman named E., born in 1986, was found hanging from the bars of her house's veranda early in the morning. A criminal case was initiated against the husband of the suicide, in which he was suspected of driving a woman to suicide (Article 103 of the Criminal Code of the Republic of Uzbekistan).

At the scene of the incident, a note was found next to the victim with the following content (in Uzbek): "Mom, dad, forgive me. I am satisfied with you. I love you very much. You, too, be satisfied with me. I will not tolerate divorce. And I can't stand my husband with another woman.

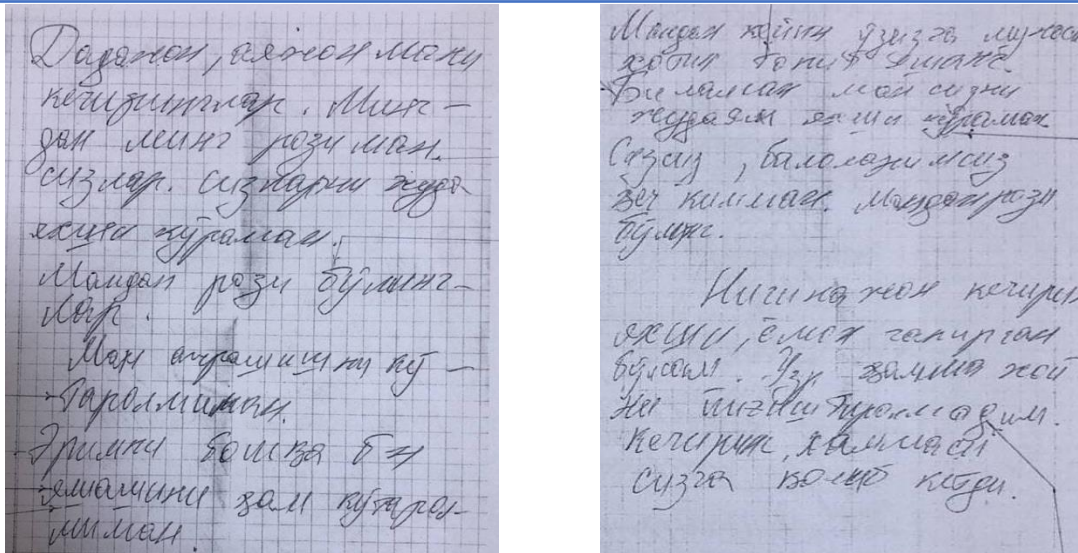
The other half of the note read: "After me, find yourself a worthy wife and live with her. I know that I love you very much. Without you and without children, I am nothing. Stay happy with me. N., (husband's sister) forgive me if I offended you with something. I'm sorry I couldn't get everywhere. I'm sorry, I left everything to you."

It appears from the materials of the criminal case that E. got married in 2010. She had two sons from marriage, born in 2011. and born in 2015 E. worked as an English teacher in secondary school. Family relations with her husband did not develop. Her husband abused alcohol, beat, tortured, humiliated her, did not allow her to communicate by phone with her parents, relatives, and colleagues. He took away a plastic card (salary) and did not give money for expenses. E. often came to work with bruises and beatings. From the side of her husband there was constant mental and physical abuse, constantly threatened with divorce.

On the day of the criminal incident, E. came home after work. Husband, returning from work, drank vodka and went to meet friends. Returning home, he made a scandal, threatened with a knife, broke dishes and severely beat her. At the same time, he began to drive her out of the house, declaring that he did not want to live with her and would marry another.

According to the conclusion of the forensic medical examination, more than 20 bruises and abrasions were found in E. in the head, neck, nose, left arm, chest, forearm, hands and legs.

¹² Makhmudova Kh.T. Legal significance of emotional states in criminal and civil proceedings (on the example of forensic psychological examination). Monograph. - Tashkent: Academy of the Ministry of Internal Affairs of the Republic of Uzbekistan. 2020. – P.172.



Pic. 2. Sample handwriting in a suicide note

Analysis of the manifestation of the above signs of handwriting gave the following results (0 - absence, 1 - presence of a sign):

| | |
|---|----|
| Distortion of the shape of letters | 1 |
| Simplifying the shape of letters | 11 |
| Irregularity of strokes, breaks of oval, semi-oval, arcuate and loop strokes and elements | 11 |
| Tortuosity of straight strokes | 1 |
| Increased angularity | 11 |
| Inaccuracy of connections, inconsistency of movements | 11 |
| Stroke tension | 11 |
| Offset or omission of diacritics | 11 |
| Skipping letters in words | 10 |
| Rearranging letters in words | 00 |
| Using wrong letters | 10 |
| Failure to respect the distance between letters, words, lines | 11 |
| Instabilities in the placement of start and end points for letters and words | 11 |
| Unevenness of all elements of handwriting - size, width, distances, margins, slope | 11 |
| Reduced writing speed | 11 |

Thus, the results of the handwriting analysis show that¹³ subject E., who committed suicide, has a state of frustration, which is characterized by: muscle tension, loss of some coordination, trembling in the hands, increased nervousness, increased shape of letters, uneven strokes, inaccuracies

¹³ PAH is a complex procedure for identifying features and calculating data that cannot be presented here in full. Therefore, we confine ourselves to a brief description of the content of the work.

in the connection, inconsistencies of letters, non-compliance with the distance between words, unevenness of all elements of handwriting, a decrease in the speed of writing is also observed.

The actions of subject E. testify to a pessimistic personal attitude towards the prospects for overcoming the crisis. For her, the crisis is seen in the chronic pressure exerted by the spouse, in the lack of appreciation for her, in the contradictions of the relationship, in the inability to rationally determine the way out of this relationship. The actions of H. (the husband of the subject) on the eve of the incident led to a narrowing of her consciousness, aggravating the state of frustration caused by the chronic disagreements of the suicide.

The behavior of subject E. corresponds to the type of "affective" suicide. The impossibility of a complete way out of the situation determined the emergence of suicidal thoughts and intentions, which led her to commit suicide.

When analyzing the submitted materials of the criminal case, there is information in which such character traits of the husband of the suicide are noted as: a tendency to alcoholism, aggressiveness, captiousness and imbalance. The behavior of the husband of the suicide caused chronic emotional tension in the subject, and the situation at the time of the suicide was perceived by her as the "last straw".

Thus, the psychological analysis of the handwriting, carried out in relation to the suicide, turned out to be a useful psychodiagnostic tool that complements the psychological analysis of the materials of the criminal case. The use of this method in forensic psychological examination is in demand and justified, since it clarifies the manifestations of individual psychological traits of character, and through their dynamics and the state of a person, in the period preceding a critical situation. In this context, it should be noted that the emergence of a computer program that analyzes handwriting, as mentioned in the publications of A.G. Chernov¹⁴, will significantly increase the objectivity and evidence of expert conclusions.

Promising for research with the help of PAH in the legal system of the Republic of Uzbekistan will also be the examination of handwritten texts of economic and financial importance, handwritten leaflets and proclamations, explanatory notes and confessions. Theoretically, very interesting results can be shown by studies of the handwriting of people who switched from the Cyrillic form of Uzbek writing to the Latin form - does this change the severity of their individual psychological characteristics, or not? Judging by the publications of some colleagues, then no. But until experimental studies are carried out on the Uzbek-speaking materials, this remains only a hypothesis so far.

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¹⁴ Чернов Ю. Г. Компьютерные методы анализа почерка. – Цюрих: IHS Books, 2021. – 232 p.

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