

Dynamic stereotype and its role in written language diagnostics

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Tendencies of Information Exchange and Some Problems of Forensic Research of Writing

The modern stage of society development is characterized by the single information space and, in fact, there is the world information process. In the globalization era, there are processes of unification of communication and exchange of information and introduction of the newest information technologies.

The attempts of people to share information with signs and symbols have been known since ancient times. Nowadays writing as a means of preserving and saving a person's thought and a means of communication and transmission of information undergoes essential changes. First of all, it is caused by changing the instrumental basis of texts creation: computer drafting and using electronic documents, electronic signatures and other requisites, exchange of electronic letters via e-mail, SMS-messages, communication in forums or ICQ etc.

The forensic research of writing presupposes solving identification and diagnostic tasks, obtaining information about the author and creator of a text (age, gender, his or her religious beliefs, conditions of text-writing, psychological and emotional state of the writer, etc.).

Traditionally, the forensic research of writing (legal graphology) is defined as a sphere of criminalistic technique. “Criminalistic identification of author”, “identification of speech” and “forensic linguistics” belong to the developing branches of criminalistic technique. The Directions on Ordering and Carrying out of Forensic and Expert Examinations (Scientific and Methodological Recommendations on the Issues of Ordering and Carrying out of Forensic and Expert Examinations) of October 8, 1998 № 53/5 (as revised in the Order of Ministry of Justice of Ukraine of December 26, 2012 № 1950/5) distinguishes between graphology expert examination and author identification¹.

According to the data of the Research Institute of Expert and Criminalistic Centre of Central Internal Affairs Directorate of Ukraine in Kharkiv Region the following number of graphology examinations was performed: 473 — in 2011, 304 — in 2012 and 322 — in 2013.

The employees of Honoured Professor Nikolai S. Bokarius Kharkiv Research Institute of Forensic Examination carried out:

in 2009 — 563 graphology examinations (research of handwriting and signature), 17 author identifications (examination of written speech);
in 2010 — 568 graphology examinations and 12 author identifications;
in 2011 — 728 graphology examinations and 9 author identifications;
in 2012 — 391 graphology examinations and 6 author identifications;
in 2013 — 336 graphology examinations and 18 author identifications.

From 2009 to 2013 the following expert examinations were performed in Honoured Professor Nikolai S. Bokarius Kharkiv Research Institute of Forensic Examination:

— forensic graphology examinations and author identifications — 3;

¹ В специальной литературе предложено различать судебные речеведческие экспертизы, которые основаны на сфере знаний о процессе речепроизводства, восприятии и активной интерпретации устных и письменных текстов реципиентом с учетом разнообразных экстралингвистических источников информации (речевой ситуации, контекста, невербальных средств и т. п.). При этом к судебным речеведческим экспертизам отнесены: судебная автороведческая экспертиза, судебные лингвистические экспертизы письменных и устных текстов, судебная почерковедческая экспертиза. Более подробно см.: Россинская Е. Р. Судебная экспертиза в гражданском, арбитражном, административном и уголовном процессе. – М.: Норма, 2005. – С. 371–393.

- integrated forensic graphology examinations and technical research of documents — 50;
- integrated forensic linguistic examinations and examinations of video- and sound recordings — 12.

Dynamic stereotype as the skill basis for preparation of the text of documents

Performing the act of writing is based on psycho-physiological factors. That is why the general aspects of physiology of human central nervous system, psychological foundations of teaching writing, human anatomy and other factors have been taken into account in the process the theory of judicial graphology development².

Handwriting is one of the most important phenomena in human activity allowing sharing information and distinguishing one person from another. The certain manner of writing is expressed in the system of movements presented in the manuscript. Handwriting depends on the level of person's development and his or her writing motor skills. Handwriting is an individual dynamically stable visual and motor stereotype of graphical technique of writing realized through the system of movements in manuscripts³.

The handwriting is connected to conditioned reflex actions, with the activity of cerebral hemispheres. Teaching how to write, numerous repetitions of writing of the same letters or signs lead to the development of graphic skills. Distinctive features of handwriting (individuality and relative stability) are connected to the *dynamic stereotype* (the neuro-physiological basis of skills). In the psychological literature the dynamic stereotype is defined as the integral system of habitual conditioned reflex responses corresponding to signal, ordinal and temporal characteristics of the stimulus line⁴.

² Лисиченко В. К., Липовский В. В. Исправленному не верить. – Киев: «Лыбидь», 1990. – С. 71.

³ Лисиченко В. К., Липовский В. В. Исправленному не верить. – Киев: «Лыбидь», 1990. – С. 71.

⁴ Психология. Словарь / под общ. ред. А. В. Петровского, М. Г. Ярошевского. – 2-е изд., испр. и доп. – М.: Политиздат, 1990. – С. 107.

In respect of this aspect we can say that “dynamic stereotype” is a persistent skill inherent also to other ways of text or graphic signs creation: preparation of the text with the help of computer technology, the use of other electronic information resources. There is a peculiar way (“handwriting”) of using computer equipment in the preparation of texts and electronic documents.

For example, there is always the individual manner of typing on the keyboard, which by its features is comparable to handwriting. A personal profile includes many criteria – for example, the rhythm of the print, control of Shift keys, right or left-handedness and use of readily available or rarely used keys⁵.

Noteworthy is the development of a new method of forensic handwriting examination, designed to study the electronic signature using biometric models to determine the anatomical and verbal signs recorded in the signature. The required software called «GrafoCerta» (real signature) was created by the Italian company «Namirial»⁶.

Handwriting is the geometry of the Soul (Plato). New trends in diagnostic study of writing

The first attempts to study psychological characteristics and mental states of a person who writes by his handwriting were made by graphologists. They dealt with the diagnosis of the character and personal qualities depending on handwriting⁷.

Generally the idea that handwriting and the soul of a person and spiritual qualities are connected goes back to antiquity (Aristotle, Theophrastus and others). The term “graphology” was introduced in the second half of the XIX century by Abbot J. Michon (France).

It should be noted that the assumption that complex in origin and structure personality traits can be diagnosed by handwriting has not re-

⁵ Журнал сетевых решений / LAN. – 2012. – № 02: www.osp.ru/lan/2012/02/13012841/

⁶ Pugnoloni M., Federiconi R. Forensic Handwriting Analysis: a Reserch by Means of Digital Biometrical Signature // Criminalistics and forensic examination: science, studies, practies. – Vilnius, Charkovas, 2013. – Chapter I. – P. 192-200.

⁷ Популярная психология: хрестоматия: учеб. пособие / сост. В. В. Мироненко. – М.: Просвещение, 1990. – С. 377.

ceived convincing scientific evidence, in most cases graphology studies were characterized by oversimplification; the attempts to find direct links between handwriting unambiguous signs and supposedly corresponding traits were unsuccessful⁸.

New trends in criminalistics and forensic science are attempts to develop judicial or forensic linguistics and psycholinguistics. Forensic (legal) linguistics is a field of knowledge in which “linguistic objects are studied through legal methods”. Linguistic expertise is an independent branch of expert knowledge, the object of which is a variety of products of speech activity in an oral (transcribed), written or electronic form, and its subject is establishing the facts significant for the legal process on the basis of special linguistic knowledge⁹.

Noteworthy are integrated approaches in the study of writing. A very promising trend is psycholinguistic research of texts to identify and diagnose personality. Psycholinguistics uses theoretical and empirical methods both of psychology and linguistics for the study of mental processes underlying language acquisition and use. The area of this research is really interdisciplinary¹⁰.

There is every reason to think that psycholinguistics as well as sociolinguistics may have a certain influence on linguistics in the future, in its essence psycholinguistics is nothing but experimental linguistics¹¹.

V.P. Belianin emphasizes that we can analyze the text according to the following parameters: pragmatics, structuredness, coherence, logic, vocabulary, grammar and style. A psychologist without linguistic knowledge cannot do it easily. But involving a linguist or psycholinguist will be more justified if the psychologist understands what he needs from

⁸ Коновалова В. Е., Шепитько В. Ю. Основы юридической психологии: учебник. – Харьков: Одиссей, 2005. – С. 61-66.

⁹ Горощко Е. И. Судебная лингвистика: становление теоретической парадигмы // Теорія та практика судової експертизи і криміналістики: зб. наук.-практ. матеріалів. – Харків: Право, 2005. – С. 161.

¹⁰ Слобин Д., Грин Дж. Психолінгвістика / пер. с англ. Е. И. Негневицкой; под общ. ред. А. А. Леонтьева. – М.: «Прогресс», 1976. – С. 21.

¹¹ Там же. – С. 5.

the philologist¹². Moreover, psycholinguistics suggests that the same linguistic phenomenon can stand for different psychic reality¹³.

The formation of new branches of expert technology (criminalistic identification of author, forensic linguistics or speech studies) meets the needs of expert practice, the development of certain types of forensic examinations. Accumulation of expert knowledge based on the data of linguistics, psycholinguistics or speech studies provides additional opportunities for expertise to solve problems.

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Summary

The article is devoted to the role of a dynamic stereotype in the diagnosis of written speech. Author paid attention to: 1) global processes in the exchange of information between people; 2) changes in the tool base for the texts writing; 3) the usage of electronic

¹² Белянин В. П. Психолингвистический анализ текста в целях идентификации личности // Актуальное состояние и перспективы развития судебной психологии в Российской Федерации: материалы Всерос. науч.-практ. конф с международ. участием. – Калуга, 2010. – С. 68.

¹³ Белянин В. П. Указ. соч. – С. 67.

documents and electronic signatures; 4) the exchange of e-mail messages. The study of the written language in criminalistics is carried out within the framework of forensic handwriting examination (judicial handwriting) and forensic linguistics. The dynamic stereotype took the important place in these branches of criminalistic techniques – the neurophysiological basis of skills, a definite integral system of conditioned reflex reactions.

The dynamic stereotype is also typical for various modern ways of performing texts (including using of electronic information resources). Reader attention is focused on new directions in the diagnostic examination of written texts, the formation of forensic (criminalistic) linguistics and psycholinguistics, as well as the development of psycholinguistic study of texts for identification purposes.

Keywords: dynamic stereotype, forensic study of written language, forensic handwriting, forensic linguistics, psycholinguistics, psycholinguistic study of text, handwriting, text of the document, electronic document.