Analysis of Psychological Signs of Authenticity when Reproducing Events by the Researched Person in Criminal Proceedings

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ABSTRACT

This article considers some aspects of the psychological assessment of the testimony reliability in the practice of conducting analysis of the narrative by forensic psychologists. The article discusses some of the signs of authenticity from the general list in the Technique for psychological assessment of the testimony reliability in legal practice of Shapovalov V. A. The author studied 19 transcripts of actual investigative actions that were divided into two groups: conditionally reliable (true) and conditionally unreliable (false). This two group of the transcripts were analyzed according to the presence or absence of the following signs of the reliability of the narrative: visual information; auditory information; information related to smells; information related to tastes; physical sensations; description of material objects, living beings, features of the environment; description of one's own actions; linking of one's actionsin time; linking of one's actionsin space; emotional states and their manifestations; physiological needs, states, their manifestations; thoughts that arose at the time of the event; description of one's appearance; description of one'sintentions (motives); distinguishing marks; details. The features were fixed and a mathematical analysis of the identified features was carried out. This research is needed to be done to expand the scientific substantiation of the methods and techniques used by forensic psychologists while conducting an assessment of the reliability (or authenticity) of the narrative.

Keywords: Reliability of the narrative; Testimony; Signs of authenticity; Criminal proceedings

INTRODUCTION

The practice of conducting research by forensic psychologists in Ukraine indicates an increase in the demand for psychological analysis of the narrative of certain events, which is recorded in video. This mainly concerns the repetition of criminal events by a witness, victim or suspect during an interrogation and investigation experiment. At the same time, there are cases of requests for the examination of video recordings that were created not during the specified legal proceedings, but in the course of other events (for example, during the operational and investigative activities). Typically, research initiators are interested in whether a person provides truthful evidence, whether he is sharing information under pressure or extraneous influence. In connection with the growth of demand for the described type of research, there is a need to expand the scientific substantiation of the methods and techniques used by psychologists in conducting these examinations.

This article considers some aspects of the application of the Technique for psychological assessment of the testimony reliability in legal practice of Shapovalov V. A. [1]. The algorithm of this technique is based on the research of the content and structure of the narrative for the truthfulness or falsity of the testimony. The technique is based on the hypothesis of Udo Undeutsch, which is based on the fact that the description of real events is qualitatively different from fabricated information [1].

The Technique for psychological assessment of the testimony reliability in legal practice of Shapovalov V. A. contains a list of signs (features, traits) of reliability (or authenticity) and unreliability, the presence or absence of which is assessed the truth of the narrative. This article discusses some of the signs of authenticity from the general list, which is indicated in the specified technique. The purpose of this research is to confirm or refute the existence of a statistical link between the number of indicators of authenticity

in the conditionally true and conditionally false statements of participants in the investigative actions (interrogations and investigative experiments) in the investigation of criminal cases.

It should be noted that by the term «signs of authenticity» the author implies features of a person's communicative behavior, which are studied within the framework of psychological science [2]. The author in this research does not use the concept of authenticity or reliability in a legal context, the concept of authenticity and reliability in this research is used in an exclusively psychological context.

MATERIALS AND METHODS

The research was carried out in several stages:

1. Selection of transcripts of actual investigative actions for the research (19 transcripts of actual investigative actions were selected).

2. Determination narrative's signs of authenticity, which are subject to analysis in this research (16 signs of authenticity were determined).

3. Fixation of the signs of authenticity in the transcripts under study (quantitative research of selected transcripts was carried out).

4. Carrying out a mathematical analysis of the identified features.

5. Generalization of the obtained results.

Selection of transcripts of actual investigative actions for the research

The object of the study is transcripts of actual investigative actions available to the author for research that is, studied in the course of her professional activities during the forensic and psychological examinations in Ukraine. The research material is divided by types of crime as follows:

• Contract killing-5

• Murder-8

• Arson-1

• Theft-1

• Kidnapping-1

• Light bodily injuries-1

• Rape-1

• Accident-1

To conduct the research, the transcripts were divided into two groups:

• Transcripts of investigative actions, in which the narrative had discrepancies with other facts in the criminal case (such transcripts are accepted in this research as conditionally unreliable);

• Transcripts of investigative actions, in which the narrative did not differ from other facts in the criminal case (such transcripts are accepted in this research as conditionally reliable).

The above criteria for determining whether a transcript belongs to conditionally reliable (true) and conditionally unreliable (false) were forcedly applied, due to the absence of a large number of transcripts at the author's disposal, the narrative in which can be regarded with absolute certainty as true or false. This is due to the fact that legal proceedings based on materials that are subject to peer review can

last for years and the author does not know whether the guilt or innocence of the narrator has been proven. In addition, judging the outcome of a trial, even when it is already known, must be viewed with caution as the final truth, since there are cases in which, after a period of time, a convicted person is acquitted. These difficulties may affect the purity of the research since no method has been defined that could guarantee the unmistakable determination of the studied transcripts as truly false or truly truthful. However, the author suggests that even if the distribution of multiple transcripts in the truthful/false categories is likely to be inaccurate, the mathematical analysis of the signs of authenticity can show marked relationships and trends in the number of these traits.

A more detailed description of the material under research is given in Table 1.

Determination of signs of authenticity of the narrative which are subject to analysis in this research

Mathematical analysis requires the determination of those signs of authenticity that can be studied on the example of transcripts of actual investigative actions, taking into account their specificity the content of the reproduced situation and the characteristics of the crime in each individual case. This research analyzes only those signs of authenticity that can be present in a narrative about any event and manifest in any role of the narrator (victim, offender, witness). This approach was used to ensure the purity of the research, in order to equalize the probability of using signs of authenticity by any narrator about different content events.

This means that the analysis of such signs, for example, as the narrator's description and citation of his communications or those of other participants in the event, was not carried out due to the fact that not all types of crimes may involve other persons with whom communication can be made. Consequently, in such cases, the narrator was a priori unable to engage in a dialogue with anyone and thus to transmit the details of the dialogue as the events unfolded in the course of the investigation actions. By the same principle, other features that imply the presence of other persons in the narrative cannot be analyzed, such as, for example, a description of acts of physical interaction, a description of the actions of other participants in the event and their binding in time and space, the mention of names and nicknames, a description of states and appearance of other participants.

This research analyzed the following signs of authenticity of the narrative, which, according to the author of the study, can be reflected in any narrative about any criminal event, as in any criminal event there is a character (narrator), his behavior (set of actions) and motives of behavior, surrounding environment and its features, peculiarities of perception of surrounding reality (through sight, hearing, smell, touch), peculiarities of inner assessment of what is happening (emotions), time and space parameters, internal dialogue (thoughts), details about his appearance, secondary information related to the event [3].

Thus, in the research, the following signs of the reliability of the narrative were analyzed:

1. Visual information (the use of the verb "saw" by the subject under study, and statements that deal with the perception of lighting, color, chiaroscuro, etc.).

2. Auditory information (use of the verb "heard" and statements that deal with the perception of sound).

3. Information related to smells (statements referring to smell perception).

4. Information related to tastes (statements that refer to the perception of taste).

5. Physical sensations (statements that refer to the perception of any physical sensations, namely temperature changes, pain, touches, etc.).

6. Description of material objects, living beings, features of the environment (description of appearance, physical characteristics, position in space).

7. Description of one's own actions (description of the sequence of specific acts of one's own physical activity).

8. Linking of one's actions in time (statements that reflect actions with their concretization in time).

9. Linking of one's actions in space (statements that display actions with their specification in space).

10. Emotional states and their manifestations (description of one's emotional state or emotional manifestations in which a person was engulfed at the time of the event).

11. Physiological needs, states, their manifestations (descriptions of states at the time of the event).

12. Thoughts that arose at the time of the event.

13. Description of one's appearance at the time of the event.

14. Description of one's intentions (motives).

15. Distinguishing marks (these are the features of the appearance of any living or inanimate object, by which it is possible to uniquely identify it).

16. Details (actions/interactions) that are of secondary importance in the event, but are inscribed in its context [1].

Fixation of the specified signs of authenticity in the examined transcripts

Given the specificity of the investigative actions that are conducted in the form of interrogations, it is necessary to take into account the fact that there is no stage of free-flowing narrative (reproduction of information by the person without interference and additional incentives to the narrative; it is generally accepted that the free-flowing narrative is the most informative for analysis), which is due to the presence of constant clarifying questions of the investigator and other participants in the event (according to Ukrainian practice). In this regard, the above-mentioned features were recorded throughout the investigative action in the fragments of the narrative directly about the event, namely: about the beginning of the criminal incident and related events, actions, etc.; about the criminal incident itself; about actions after a criminal incident, ending with leaving the scene of the event.

According to Shapovalov V. O., the listed fragments refer to the pre-criminal, criminal and post-criminal stages of the narrative, where:

• Pre-basic-preamble, beginning of the day, introduction, etc.

• Pre-criminal- events immediately before the commission of criminal acts.

• Criminal (key fragment)- the very actions of a criminal nature.

• Post-Criminal-actions after criminal acts, leaving the scene of an incident, concealment of evidence, etc. [1].

In addition, for further comparison, an analysis of the presence of the listed features is carried out separately in the key fragment of the event, namely, when describing the event itself the criminal stage.

In order to eliminate the influence of communication of the investigator and other participants of the investigative action on the analysis of signs of authenticity, the answers of the narrator, duplicating the content of the opponent's question, were not taken into account in the research (for example, the investigator: "At that time you were near the outer door?", the narrator: "Yes, at that time I was near the outer door").

Also, the research did not take into account monosyllabic answers, which in terms of the content of the answer, did not go beyond the scope of the question, as such answers are stimulated by the content of the question and reflect the minimum initiative of the narrator, for example: "What color is the car?"- "Blue".

Controversial features, which cannot be categorically attributed to signs of authenticity due to the lack of sufficient specificity, were also not recorded by the researcher.

Features that can be attributed simultaneously to two types (for example, to the description of own actions and details that are of secondary importance in the event but are included in its context) were recorded only once and were assigned to a sign, which is more relevant to a particular context.

The investigative experiments did not take into account the signs that the narrator demonstrated at the scene of the event (for example, "in this arch", "on this bench"), in order to eliminate the possibility of false diagnosis of such a sign. This is due to the fact that the narrator, staying in the described place, can more easily construct (come up with) details of the event, as it is easier for him to point out the subject, than to engage a complex thought process to describe the subject [4,5].

In order to determine the relationship between the number of signs of authenticity and the length of the narrative, the number of signs of authenticity was also recorded at the fixation of the number of analyzed words by the narrator (that is, the number of words in the narrative about the actual event as a whole and the number of words about the actual criminal acts only in the key fragment) using the Microsoft Word application. Speech activity not associated with the described event, procedural phrases and replicas were not analyzed (Tables 2 and 3) [6, 7].

RESULTS

Carrying out a mathematical analysis of the identified features

The results are presented in the form of tables form in order to illustrate the processing of the data received (Tables 4-7).

For data processing, the arithmetic averages of each sample for the studied indicators are further considered (Tables 5-7).

Comparison of the average arithmetic number of features in the studied groups (conditionally reliable and conditionally unreliable narratives) (Tables 5-7).

Table 1: Distribution of studied transcripts.

Number	Type of crime	Role of the narrator	Gender of narrator
1	contract killing in a group	suspect	M
2	contract killing in a group (incomplete)	suspect	M
3	contract killing in a group (incomplete)	suspect	M
4	contract killing	suspect	F
5	contract killing	victim	M
6	murder in a group	suspect	M
7	murder	witness	F
8	murder	suspect	M
9	murder	witness	F
10	contract arson	suspect	M
11	murder	suspect	M
12	kidnapping	victim	M
13	theft	suspect	M
14	murder	suspect	M
15	slight physical injury	suspect	M
16	murder	suspect	M
17	rape	victim	F
18	fatal car accident	suspect	M
19	murder	suspect	M

Table 2: Fixation of signs of authenticity in the whole narrative.

Number		Conditionally true											Conditionally false							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Visual information	14	7	21	41	7	5	1	13	19	10	5	4	6	4	8	14	0	8	0
2	Auditory Information	11	1	1	7	2	7	2	1	2	0	0	0	0	1	5	10	0	2	0
3	Information related to odors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Information related to tastes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Physical sensations	1	1	6	8	0	2	0	0	0	0	2	0	0	0	1	0	1	0	1
6	Environmental Features	11	9	22	24	1	2	0	8	8	2	1	1	0	11	2	4	4	1	7
7	Description of own actions	12	4	5	24	1	11	4	18	8	4	2	1	5	12	3	11	4	5	8
8	Linking of one's actions in time	5	5	23	18	1	1	2	1	5	4	3	3	0	1	0	7	3	1	2
9	Linking of one'sactions in space	10	8	17	19	3	2	1	31	7	4	3	0	2	4	4	5	10	10	2
10	Emotional states	0	3	10	13	1	1	2	0	3	2	5	0	0	1	0	4	1	0	1
11	Physiological needs, conditions	1	0	1	2	2	1	1	1	0	0	2	0	0	0	0	3	0	0	0
12	Thoughts at the time of the event	0	4	15	8	2	0	2	0	3	3	2	0	0	0	1	3	0	7	1
13	Description of one'sappearance at the time of the event	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
14	Description of one'sintentions	2	2	4	6	1	2	0	0	1	0	1	0	0	0	0	2	0	2	1
15	Distinguishing marks	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Details that are of secondary importance in the event, but are inscribed in its context	2	4	15	14	2	1	3	6	7	1	0	2	0	2	1	3	4	3	7
	Total number	70	50	143	190	24	35	18	79	63	30	27	11	13	36	25	66	28	39	30
	Number of studied words	2480	2998	9081	6460	442	2861	1081	2848	3498	955	646	1020	407	1543	1546	2551	1092	757	601

Table 3: Fixation of signs in the key fragment of the narrative.

Number		Conditionally true													Conditionally false					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Visual information	13	7	9	18	7	3	0	4	7	5	5	4	5	4	8	13	0	5	0
2	Auditory Information	11	1	0	7	2	2	1	1	1	0	0	0	0	1	5	7	0	2	0
3	Information related to odors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Information related to tastes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Physical sensations	0	1	2	6	0	2	0	0	0	0	2	0	0	0	1	0	1	0	1
6	Environmental Features	3	6	8	6	1	1	0	4	5	1	1	1	0	9	1	2	4	1	3
7	Description of own actions	8	4	3	16	1	10	2	9	4	4	2	1	5	12	2	4	4	4	5
8	Linking of one's actions in time	0	2	10	7	0	1	0	0	0	2	0	2	0	1	0	1	2	0	1
9	Linking of one's actions in space	5	7	4	10	2	1	0	5	3	4	1	0	2	3	2	2	8	3	0
10	Emotional states	0	3	2	8	1	1	1	0	0	2	1	0	0	1	0	3	1	0	1
11	Physiological needs, conditions	0	0	0	2	2	0	1	0	0	0	0	0	0	0	0	3	0	0	0
12	Thoughts at the time of the event	0	4	2	5	2	0	0	0	1	2	1	0	0	0	1	1	0	5	0
13	Description of one's appearance at the time of the event	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
14	Description of one's intentions	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	0	0
15	Distinguishing marks	0	2	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Details that are of secondary importance in the event, but are inscribed in its context	1	0	5	6	1	1	0	1	1	0	0	0	0	1	1	3	4	0	0
	Total number	41	38	48	94	21	22	5	24	23	20	15	8	12	32	21	40	25	20	11
	Number of studied words	672	1357	1265	1949	306	1723	441	461	985	265	216	578	340	1199	1046	1299	1003	289	216

Table 4: The general number of the identified features in studied transcripts.

Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
The number of words in the entire investigative action	2480	2998	9081	6460	442	2861	1081	2848	3498	955	646	1020	407	1543	1546	2551	1092	757	601
	70	50	143	190	24	35	18	79	63	30	27	11	13	36	25	66	28	39	30
Percentage of the number of features (of the number of words in the entire narrative)	2,82	1,67	1,57	2,94	5,43	1,22	1,67	2,77	1,80	3,14	4,18	1,08	3,19	2,33	1,62	2,59	2,56	5,15	4,99
The arithmetic averages of the percentage of signs of authenticity throughout the narrative in the study group					2,5										3,08				
Number of words in a key fragment	672	1357	1265	1949	306	1723	441	461	985	265	216	578	340	1199	1046	1299	1003	289	216
The number of features in the key fragment	41	38	48	94	21	22	5	24	23	20	15	8	12	32	21	40	25	20	11
Percentage of the number of features (from the number of words in the key fragment)	6,10	2,80	3,79	4,82	6,86	1,28	1,13	5,21	2,34	7,55	6,94	1,38	3,53	2,67	2,01	3,08	2,49	6,92	5,09
The arithmetic averages of the percentage of signs of authenticity in the key fragment in the study group					4,19										3,79				
The number of words in the entire investigative action, with the exception of the key fragment	1808	1641	7816	4511	136	1138	640	2387	2513	690	430	442	67	344	500	1252	89	468	385
The number of signs in the entire investigative action, with the exception of the key fragment	29	12	95	96	3	13	13	55	40	10	12	3	1	4	4	26	3	19	19
Percentage of the number of features (from the number of words in the entire narrative, except for the key fragment)	1,60	0,73	1,22	2,13	2,21	1,14	2,03	2,30	1,59	1,45	2,79	0,68	1,49	1,16	0,80	2,08	3,37	4,06	4,94
The arithmetic averages of the percentage of signs of authenticity throughout the narrative, with the exception of the key fragment in the study group					1,64										2,37				
The percentage of the number of words of the key fragment from the entire narrative	27,10	45,26	13,93	30,17	69,23	60,22	40,80	16,19	28,16	27,75	33,44	56,67	83,54	77,71	67,66	50,92	91,85	38,17	35,94
The arithmetic averages of the percentage of the number of words of the key fragment from the entire narrative in the study group					35,88										59,54				

Table 5: Comparison of the average arithmetic number of features in the whole narrative.

	Signs of authenticity	The arithmetic averages in the whole narrative (conditionally true)	The arithmetic averages of the entire narrative (conditionally false)	Difference	Percentage of the number of all signs in the whole narrative (conditionally true)	Percentage of the number of all signs in the whole narrative (conditionally false)	Difference
1	Visual information	13,8	5,4	8,4	19,7	19,8	-0,1
2	Auditory Information	3,4	2,0	1,4	4,8	7,3	-2,5
3	Information related to odors	0	0,0	0	0,0	0,0	0
4	Information related to tastes	0	0,0	0	0,0	0,0	0
5	Physical sensations	1,8	0,6	1,2	2,6	2,0	0,6
6	Environmental Features	8,7	3,4	5,3	12,4	12,5	-0,1
7	Description of own actions	9,1	5,7	3,4	13,0	20,6	-7,6
8	Linking of one's actions in time	6,5	2,2	4,3	9,3	8,1	1,2
9	Linking of one's actions in space	10,2	4,4	5,8	14,5	16,2	-1,7
10	Emotional states	3,5	1,3	2,2	5,0	4,8	0,2
11	Physiological needs, conditions	0,9	0,6	0,3	1,3	2,0	-0,7
12	Thoughts at the time of the event	3,7	1,6	2,1	5,3	5,7	-0,4
13	Description of one's appearance at the time of the event	0,4	0,2	0,2	0,6	0,8	-0,2
14	Description of one's intentions	1,8	0,7	1,1	2,6	2,4	0,2
15	Distinguishing marks	0,9	0,0	0,9	1,3	0,0	1,3
16	Details that are of secondary importance in the event, but are inscribed in its context	5,5	2,4	3,1	7,8	8,9	-1,1
	Total number	70,2	30,5	39,7			

Table 6: Comparison of the average arithmetic number of features in the key fragment (criminal stage).

	Signs of authenticity	The arithmetic averages in the key fragment (conditionally true)	The arithmetic averages in the key fragment (conditionally false)	Difference	Percentage of the number of all features in the key fragment (conditionally true)	Percentage of the number of all features in the key fragment (conditionally false)	Difference
1	Visual information	7,3	4,9	2,4	19,9	26,6	-6,7
2	Auditory Information	2,6	1,7	0,9	7,1	9,1	-2
3	Information related to odors	0	0,0	0	0,0	0,0	0
4	Information related to tastes	0	0,0	0	0,0	0,0	0
5	Physical sensations	1,1	0,6	0,5	3,0	3,0	0
6	Environmental Features	3,5	2,4	1,1	9,6	13,3	-3,7
7	Description of own actions	6,1	4,3	1,8	16,7	23,6	-6,9
8	Linking of one's actions in time	2,2	0,8	1,4	6,0	4,2	1,8
9	Linking of one's actions in space	4,1	2,3	1,8	11,2	12,7	-1,5
10	Emotional states	1,8	0,8	1	4,9	4,2	0,7
11	Physiological needs, conditions	0,5	0,3	0,2	1,4	1,8	-0,4
12	Thoughts at the time of the event	1,6	0,9	0,7	4,4	4,8	-0,4
13	Description of one'sappearance at the time of the event	0,3	0,2	0,1	0,8	1,2	-0,4
14	Description of one's intentions	0,3	0,2	0,1	0,8	1,2	-0,4
15	Distinguishing marks	0,6	0,0	0,6	1,6	0,0	1,6
16	Details that are of secondary importance in the event, but are inscribed in its context	1,6	1,0	0,6	4,4	5,4	-1
	Total number	33,6	20,4	13,2			

Table 7: Comparison of the average arithmetic number of features in the entire narrative except for the key fragment.

	Signs of authenticity	The arithmetic averages of the entire narrative except for the key fragment (conditionally true)	The arithmetic averages of the entire narrative except for the key fragment (conditionally false)	Difference	Percentage of the number of all features in the whole narrative except for the key fragment (conditionally true)	Percentage of the number of all features in the whole narrative except for the key fragment (conditionally false)	Difference
1	Visual information	6,5	0,6	5,9	17,8	5,5	12,3
2	Auditory Information	0,8	0,3	0,5	2,2	3,3	-1,1
3	Information related to odors	0	0,0	0	0,0	0,0	0
4	Information related to tastes	0	0,0	0	0,0	0,0	0
5	Physical sensations	0,7	0,0	0,7	1,9	0,0	1,9
6	Environmental Features	5,2	1,0	4,2	14,2	9,9	4,3
7	Description of own actions	3	1,3	1,7	8,2	13,2	-5
8	Linking of one'sactions in time	4,3	1,4	2,9	11,7	14,3	-2,6
9	Linking of one's actions in space	6,1	2,1	4	16,7	20,9	-4,2
10	Emotional states	1,7	0,6	1,1	4,6	5,5	-0,9
11	Physiological needs, conditions	0,4	0,2	0,2	1,1	2,2	-1,1
12	Thoughts at the time of the event	2,1	0,7	1,4	5,7	6,6	-0,9
13	Description of one's appearance at the time of the event	0,1	0,0	0,1	0,3	0,0	0,3
14	Description of one'sintentions	1,5	0,4	1,1	4,1	4,4	-0,3
15	Distinguishing marks	0,3	0,0	0,3	0,8	0,0	0,8
16	Details that are of secondary importance in the event, but are inscribed in its context	3,9	1,4	2,5	10,7	14,3	-3,6
Total number		36,6	10	26,6			

DISCUSSION

1. The distribution of features in a conditionally truthful narrative tends to concentrate in the key fragment (4.19% of the total number of words in the key fragment). In the rest of the investigative action, the signs of concentration are 1.64%, which can be interpreted as a decrease in the feature concentration in non-key fragments relative to the key one.

This trend is less expressed in conditionally false stories (3.79% of the signs of the number of words in the key fragment and 2.37% in the rest of the investigative action).

In other words, in truthful narratives, feature saturation in a key fragment is more expressed than in other narrative fragments, while in false narratives this difference in feature concentration is less expressed.

2. The total concentration of features in conditionally true narratives (2.5%) is slightly lower than in conditionally false ones (3.08%), which can presumably be explained by the characteristic low dialogue activity of the narrator, who gives inaccurate information (in this case feature concentration will be higher due to the lower total number of spoken words).

3. In the context of an interrogation, the analysis of the ratio of the number of words in the pre- and criminal, the post-criminal stages is not informative (despite the fact that it is generally assumed that in the free stage of truthful narratives the key fragment occupies the most part of the narrative). According to the results of this research, in conditionally truthful narratives, the key fragment occupies, on average, 35.88% of the narrative, and in false ones, it is larger-59.54%. This is probably due to the influence of the investigator. The author suggests that it is appropriate to analyze the ratio of the number of words in each stage of the narrative in the presence of a "free narrative" (when the narrator independently leads the narrative, monologue, without the intervention of others). At the same time, the transcripts that have been studied are a fixation on investigative actions in which the investigator constantly influences the narrator, directing his questions in the right direction for the investigator because the investigator needs to record legally relevant information for the investigation. At the same time, in false narratives, as a rule, there is the low communicative activity of the narrator and the investigator has to stimulate him more to tell him significant details of the event, especially regarding the criminal stage of the narrative. That is, against the background of a low level of speech activity with constant stimulation of the investigator by questions in the key fragment of the event, the total number of words in the key fragment of the false narrative can be much higher than in other fragments, which will be determined by the specifics of the investigative action itself.

4. The arithmetic average number of words for a conditionally true narrative is 3270, and for a conditionally false narrative is 1129, which is almost three times less. This confirms that false narratives have an expressed conciseness compared to true ones.

5. The total number of traits in the conditional-true narratives (the arithmetic average for all the investigated narratives of 70.2) is more than twice as high as the total number of features in conditionally false narratives (30.5). At the same time, a noticeable difference in the number of signs (attention is drawn to signs whose number in conditionally true narratives exceeds at least twice the number of fixed signs in conditionally false narratives) is noted in the following signs:

• Distinguishing marks-in conditionally false ones, they are absent at all;

• Physical sensations-3 times;

• Linking of one's actions in time-3 times;

• Emotional states-2.7 times;

• Visual information-2.6 times;

• Description of one's intentions-2.6 times;

• Environmental Features-2.6 times;

• Linking of one's actions in space-2.3 times;

• Thoughts at the time of the event-2.3 times;

• Details that are of secondary importance in the event, but are inscribed in its context-2.3 times.

At the same time, the opposite trend (that any kind of trait was more in a false narrative than in the truth one) is not noted at all.

6. The number of signs in the key fragment in the conditionally true narrative (the arithmetic average for all the studied narratives is 33.6) is greater than in conditionally false narrative (20.4). But this difference is less expressed than the difference in the number of features in the whole narrative. At the same time, a noticeable difference in the number of signs (in truthful narratives there are at least twice as many of them as in false ones) is noted in such signs:

• Distinguishing marks – in conditionally false ones, they are absent at all;

• Linking of one's actions in time-2.6 times;

• Emotional states-2.3 times.

In this case, the opposite trend (that any kind of trait was more in a false narrative than in the truth) as in the previous case, is not noted at all.

7. The number of traits in non-core fragments (pre-criminal and post-criminal stages of the narrative) in conditional-truth stories (the arithmetic average for all investigated narrative is 36.6) is more than three times greater than the number of traits in conditional-false narrative (10). At the same time, the saturation of the features in a percentage ratio is lower in truthful (1.64%) compared with false (2.37%) narratives. This suggests a strong tendency to report details with high verbal activity in non-core fragments of the true narrative (compared to a false one). At the same time, a noticeable difference in the number of signs (there are at least two times more of them in true stories than in false ones) is noted in almost all signs. More signs are expressed (in truthful narratives there are at least three times more of them than in false ones) note:

• Distinguishing marks-in conditionally false ones, they are absent at all;

• Physical sensations-in conditionally false ones, they are absent at all;

• Description of one's appearance at the time of the event-in conditionally false ones, they are absent at all;

• Visual information-10.8 times;

• Environmental Features-5.2 times;

• Description of one's intentions-3.8 times;

• Linking of one's actions in time-3.1 times;

• Thoughts at the time of the event-3 times.

8. Analysis of the ratio of researched traits shows that in conditional-true narratives, the largest percentage (more than 10% of the other features) have the following traits: visual information (19.7%), linking of one's actions in space (14.5%), description of one's own actions (13%), environmental features (12.4%).

In conditionally false narratives, the following features have the highest percentage: description of one's own actions (20.6%), visual information (19.8%), linking of one's actions in space (16.2%), and environmental features (12.5%).

The quantitative comparison shows that the indicator "Description of one's own actions" is more saturated in the key fragment of conditional-false narratives. Otherwise, there is no significant quantitative difference.

The distribution by types of signs does not have significant differences in conditionally false and conditionally truthful narratives.

9. An analysis of the percentage of features shows that in the key fragment in conditionally truthful narratives, the largest percentage (more than 10% of other features) have the following features: visual information (19.9%), description of one's own actions (16.7%), linking of one's actions in space (11.2%).

In conditionally false narratives, the following features have the highest percentage: visual information (26.6%), description of one's own actions (23.6%), environmental features (13.3%), linking of one's actions in space (12.7%). About 50% of the investigated features in the key fragment of the false narrative are concentrated in the indicators "Visual information" and "Description of one's own actions", which is not so expressed in truthful narratives. This may indicate that the narrator in false narration concentrates more precisely on these substantive components of the reproduction of the situation. The author suggests that this is because they are easier to construct (it is easier to deal with their visual experience and experience of manipulation than other categories), or because the narrator emphasizes on them in preparation for a false narrative, because he considers they're fundamental to the narrative.

The quantitative ratio of the percentages in the key fragment of the narrative also does not have significant differences in true and false narratives, except for the fact that in the conditionally false narrative more than 10% have typed the topic "Environmental feature" and conditionally true its value is below the specified threshold.

10. An analysis of the percentage of features shows that in non-key fragments in conditionally truthful narrative, the largest percentage (more than 10% of other features) have the following features: visual information (17.8%), linking of one's actions in space (16.7%), environment features (14.2%), linking of one's actions in time (11.7%), details that are secondary to the event, but are embedded in its context (10.7%).

In conditionally false narratives, the following features have the largest percentage: linking of one's actions in space (20.9%), linking of one's actions in time (14.3%), details that are of secondary importance in the event, but are embedded in its context (14.3%), description of one's own actions (13.2%).

In the non-key fragment, the concentration in conditionally true narratives is higher in the features "Visual information", "Environmental features", and in conditionally false in the sign "Description of one's own actions".

CONCLUSIONS

Quantitative research of 19 transcripts of actual investigative actions (interrogations and investigative experiments) in the investigation of criminal cases showed the existence of a statistical link between the number of indicators of authenticity in the conditionally true and conditionally false statements of participants.

A research critique

1. In the course of the research, it is impossible to exclude the influence of the author's subjectivity in assessing the presence/absence of a feature by the researcher.

2. Transcripts do not provide clear evidence of reliable/unreliable narratives.

3. Various cases have been investigated on the composition of the crime and the role of the narrator, which may affect the number of features in the narrative and this influence cannot be excluded, as it has not been studied yet.

4. Different motives for giving false testimony may lead to different qualitative and quantitative content of the narrative, which may also influence the results of the research.

5. Conditionally false transcripts, with a high degree of probability, display not complete construction of events, but a partial one, which may influence the results of the research.

6. The research analyzed too small a sample to establish reliable statistical relationships.

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