Blitz Judgment. Sins of the 21st Century Identified by Multiple Intelligences and Vibraimage

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Abstract: *The method of adaptive testing with the use of neurolinguistic profiling with the presentation of equivalent factorial stimuli, individually determined at the stage of preliminary testing, is described. Linear structure of modern negative addictions (vices, sins) has been developed, which is uniquely tied to the types of multiple intelligences by extraversion level increases. The technique of positive and negative personality traits testing, using vibraimage technology and presentation of text and visual stimuli with the 5 seconds presentation period (blitz) is described. The calculation of a person's sins profile and the general sins coefficient based on the unconscious and conscious responses to the presented stimuli is proposed. The possibilities of applying the proposed method of personal profiling are considered. Proposed the hypothesis of increasing the accuracy of personality profiling by replacing psychophysiological prognose testing to the study on a psychophysiological simulator, in which real personality characteristics are measured.*

Keywords: *vibraimage, personality traits, multiple intelligences, addictions, vices, sins, psychophysiology, psychophysiological testing.*

Intruduction

For Russian-speaking reader, the question of compatibility between genius and villainy was solved by Pushkin back in the 19th century: "But genius and villainy are two incompatible things. Isn't that so?" (Pushkin, 1831). In approximately the same way, scientists prefer to study separately the positive properties and talents of a person (Gardner, 1983; 2009; 2021), separately — negative ones (Leonhard, 1976, Zondi, 1998; Drayton, 2009; Brud, Cieciuch, 2020) and separately-neutral characteristics. personality (Eysenck, 1981). The development of vibraimage technology (Minkin, Shtam, 2000; Minkin, 2007; Minkin, Nikolaenko, 2008) as a tool for studying the personality profile in this regard did not differ from traditional scientific approaches to analyzing the psychophysiological state through reflex micromovements (Darwin, 1872; Mira-y-Lopez, 1957; Bernstein, 1967; Lorenz, 1963). We also initially created different questionnaires to identify talents and profiles of multiple intelligences (Minkin, Nikolaenko, 2017), neutral behavioral characteristics (Minkin, 2020a) and negative personality characteristics (Nikolaenko, 2020). However, the development of the adaptive testing and neurolinguistic profiling principles (Minkin, Nikolaenko, 2020) has noticeably changed our understanding of a person as a physical object in which everything is interconnected and intertwined, including positive and negative properties. Let's take a look at the basic principles of adaptive testing step by step,

which allowed us to swing at comprehensive personality profiling in a short testing time of 250 seconds with blitz 5-second testing for one stimulus.

The first principle of psychophysiological testing was the joint processing of the subject's conscious and unconscious responses, measured on the relative scale (Minkin, Nikolaenko, 2017). The next principle of psychophysiological testing, which made it possible to significantly reduce the time while increasing the accuracy, was linear oppositional testing with the sequential formation of oppositional stimuli formed for the growth of extraverted personality traits (Minkin, Myasnikova, 2018). Synchronization of brain activity rhythm under the periodic presentation of fixed sequence of external stimuli became the next step in understanding psychophysiological responses (Minkin, Blank M., 2019), since it was found that chronobiological processes are interconnected with the order and period of presentation of stimuli (Halberg, 1987; Blank M., Blank O., 2010). Determination of correlations between the main psychophysiological and behavioral parameters became the next stage in the study of psychophysiological responses (Minkin, 2020a). The development of the neurolinguistic adaptive testing method with the initial stage of the personality type measurement and the presentation of significant stimuli during one test made it possible to make the questionnaires really personal with a decrease in the number of presented stimuli during one test (Minkin, Nikolaenko, 2020). The transition to the blitz period of stimulus presentation (5 seconds) made it possible not only to increase the number of presented stimuli in a short testing time (no more than 10 minutes), but also to increase the accuracy of revealing hidden information (Minkin, 2021; Minkin, Blank M., 2021).

Without these consistently taken steps in understanding the psychophysiological response to stimuli, it was impossible to correctly structure the positive and negative personality traits in a short 250-second test with the presentation of 48 multifactor stimuli that differ depending on the personality type of the subject. The structure of multiple intelligences (MI) with an increase in extraversion, and the structure of negative personality traits (next we will use the term "sins profile" instead of the terms profile of negative personality traits or vices, as it is shorter and has ancient history). Near the same was identified by head movements before (Behnke et al., 2021). However, increasing stimuli extraversion in our method gives compatibility between the first positive and second negative parts of testing, each includes the same number of stimuli — 24 and combine physiology and processing.

The order of stimuli presentation in the first part of the questionnaire for determining the leading types of MI and the second part of the questionnaire for identifying sins profile (SP) shown Table 1.

In our opinion, linking the sequence of sinful stimuli presentation to the types of MI that are essentially close to them makes it possible to compare positive and negative personality traits most clearly. Our approaches to these MI types have been described in previous publications (Minkin, Nikolaenko, 2017; 2020). Therefore, now we provide explanations only for the terms of the 12_Sins column of Table 1, on the basis of which the stimuli of the MI-Sins program were developed, revealing the indicated SP.

Suicide is a set of thoughts, ideas, experiences of a suicidal orientation with a readiness to implement them. Suicide is understood as a deliberate desire to deprive oneself of life due to objective or subjective reasons.

The structure of stimulus presentation in the first part of the questionnaire for determining the leading types of MI and the second part of the questionnaire for identifying SP

No	12_MI	12_Sins	Abbr
1	Intrapersonal (IA)	Suicide	SU
2	Philosophical (PH)	Sloth	SL
3	Logical-Mathematical (LM)	Cyber addiction	CA
4	Business-Mercenary (BM)	Greed	GD
5	Visual-Spatial (VS)	Alcoholism, Drug Addiction	AD
6	Naturalistic (NL)	Gluttony	GL
7	Bodily-Kinesthetic (BK)	Anorexia	AN
8	Musical-Rhythmic (MR)	Pride, Vanity	PV
9	Ascetic-Sacrificial (AS)	Bribe, Theft	BT
10	Verbal-Linguistic (VL)	Envy	EN
11	Creative (CR)	LUST	LT
12	Interpersonal (IE)	Wrath	WR

Sloth (Laziness) — the inability or unwillingness to be active in any business; deliberate inaction in a situation of favorable activity; weakness. Sloth, as one of the types of procrastination, social and personal passivity of a person. One of the 7 Deadly Sins (Kleinberg, 2010).

Cyber addiction is a form of psychological dependence (addictive behavior), which manifests itself in an obsessive fascination with various information resources and technical means. Cyber addiction includes internet-addicted behavior, gambling addiction (computer games, online games, games on a smartphone, tablet, i.e. using gadgets); manifests itself in the devaluation of non-play vital interests and desocialization of the individual.

Greed is a conscious hypertrophied striving (can reach the level of overvalued ideas) to multiply material and non-material values. Greed as a category of value orientations or character trait; manifests itself in the devaluation of other vital interests, can lead to desocialization of the individual. One of the 7 Deadly Sins (Kleinberg, 2010).

Alcoholism and drug addiction. Alcoholism — from the psychological dependence of alcohol consumption to the clinical dependence of alcohol. Alcohol dependence includes withdrawal symptoms or a tendency to develop it in various forms of psychological dependence (relieving physical or mental stress through the use of ethanol). Drug addiction is characterized by a pathological craving for the use of drugs that can cause an altered state of consciousness (withdrawal from reality). Drug addiction is accompanied by symptoms of mental and physical dependence, accompanied by signs of personality desocialization.

Gluttony — an addiction to tasty and abundant food; addiction to overeating; excess and greed in the use of food. Gluttony can be viewed as psychogenic overeating — an eating disorder in the form of a reaction to distress or in the structure of bulimic syndrome. One of the 7 Deadly Sins (Kleinberg, 2010).

Anorexia is a set of distorted ideas about the "harm" of food intake. Anorexia is an eating disorder expressed in a conscious, persistent desire to lose weight, fear of obesity and signs of personality desocialization, an overvalued desire for a healthy lifestyle.

Pride, vanity — false exaltation, narcissism. Pride and vanity are manifested in heightened arrogance, self-deception, in severe cases — megalomania, narcissism, selfishness, "double morality". One of the 7 Deadly Sins (Kleinberg, 2010).

Theft-Bribery is a type of delinquent behavior that manifests itself in a conscious desire to appropriate someone else's property. A bribe as a form of theft: money or other valuables illegally given to an official in exchange for performing any actions in the office in the interests of the giving person.

Envy is an affective state, a personality trait, a form of psychological dependence, manifested in an obsessive comparison of one's own achievements with the achievements of other people. A distinctive feature of envy (as opposed to rivalry, etc.) is a persistent negative emotional background, hostility towards other persons (owners of the desired goods). One of the 7 Deadly Sins (Kleinberg, 2010).

Lust is a pronounced sexual desire, voluptuousness, over-attraction to the sexual sphere (sex, erotica). This concept has a broad interpretation, it can be understood as an overvalued idea (obsession) with the sexual sphere in the structure of personality deformation (deviant behavior) or as a clinical symptom — increased sexual desire (hypersexuality). One of the 7 Deadly Sins (Kleinberg, 2010).

Anger (Rage) is a difficultly controlled affective reaction, expressed in dissatisfaction with any phenomenon, followed by the desire to eliminate the object of dissatisfaction in any way; anger can be part of the structure of aggressive, deviant, delinquent behavior, etc. One of the 7 deadly sins (Kleinberg, 2010).

The aim of this work is to improve the accuracy of the neurolinguistic method of adaptive testing (Minkin, 2019) when carrying out complex profiling and comparative analysis of the positive (MI) and negative (PL) characteristics of the subject in the shortest possible time. According to the proposed hypothesis, increasing the accuracy of personality profiling is achieved by placing a subject in conditions close to reality and turning psychophysiological testing into a study on a simulator. In this case the psychophysiological response to multifactor stimuli reflects the current attitude of the subject to the presented stimuli. Thus, the forecasting of future hypothetical personality characteristics is replaced by the measurement of reliable current personality characteristics.

Materials and Methods

On the basis of the adaptive neuro-linguistic testing program VibraNLP (Minkin, Nikolaenko, 2020) with different significance of factor stimuli, a new testing method for factor stimuli of equal significance was developed by the MI-Sins program. MI profile calculation is doing at the first stage of testing and presentation of equal significance 12 factorial stimuli linguistically linked to the two leading types of MI is doing on the second stage of testing. MI-Sins program includes the presentation of 24 stimuli (combined into 12 linearly oppositional pairs similar to the VibraMI program) during preliminary testing and presentation of 24 factorial stimuli, consisting of 2 pairs of

12 stimuli each. Factorial stimuli are linguistically linked to two leading types of MI (determined on preliminary testing) and in each pair are tied to 12 submarines. The presentation period of each of the 48 stimuli was only 5 seconds. Testing started from the local minimum of the current psychophysiological state (Minkin, 2021b). The total time for each test was 250 seconds. Calculation of psychophysiological response to stimuli based on suggested early method including measurement of information and energy components (Minkin, 2020b)

During current study MI-Sins program tested a group of 10 people, aged 20 to 75, male 70%, female 30% living in St. Petersburg, Russia, without criminal record.

Results

The calculation of the MI profile at the preliminary testing stage is similar to VibraMI program (Minkin, Nikolaenko; 2017) and is determined for conscious (YN), unconscious (IE) and integral (IE +YN) psychophysiological responses (Fig. 1). At the same time, the period of presentation of 24 neutral stimuli was reduced to 5 seconds in the MI-Sins program, in contrast to approximately 16 seconds per stimulus for VibraMI program. SP is determined separately for two leading MI types (Fig. 2) and together with the MI profile in the form of a comparative MI-Sins profile on the main page of the MI-Sins program (Fig. 3).

The MI-Sins program generates Table 2 (unconscious response) and Table 3 (integral response) with the numerical values of the MI-Sins profiles, ranged in decreasing order of significance (from top to bottom) according to the results of the testing performed and highlights with color the SP exceeding the average level of the two leading types of MI.

Table 2

MI-Sins profiles (unconscious response),
ranged in decreasing order of significance (from top to bottom)

| No	MI (IE)			Sins (IE)		
	%	Abbr	MI type	%	Abbr	SP type
1	100,0	IE	Interpersonal	95,9	SL	Sloth
2	99,3	MR	Musical-Rhythmic	74,1	SU	Suicide
3	93,8	PH	Philosophical	37,3	GA	Gadget addiction
4	66,7	CR	Creative	34,9	BT	Bribe theft
5	63,4	IA	Intrapersonal	28,5	GD	Greed
6	40,1	AS	Ascetic-Sacrificial	21,7	LT	Lust
7	23,4	VS	Visual-Spatial	20,4	AN	Anorexia
8	21,7	BK	Bodily-Kinesthetic	15,8	AD	Alcoholism, Drug addiction
9	16,8	VL	Verbal-Linguistic	1,9	WR	Wrath
10	14,3	LM	Logical-Mathematical	−6,8	EN	Envy
11	9,1	NL	Naturalistic	−11,8	PV	Pride, Vanity
12	0,0	BM	Business-Mercenary	−24,5	GL	Gluttony
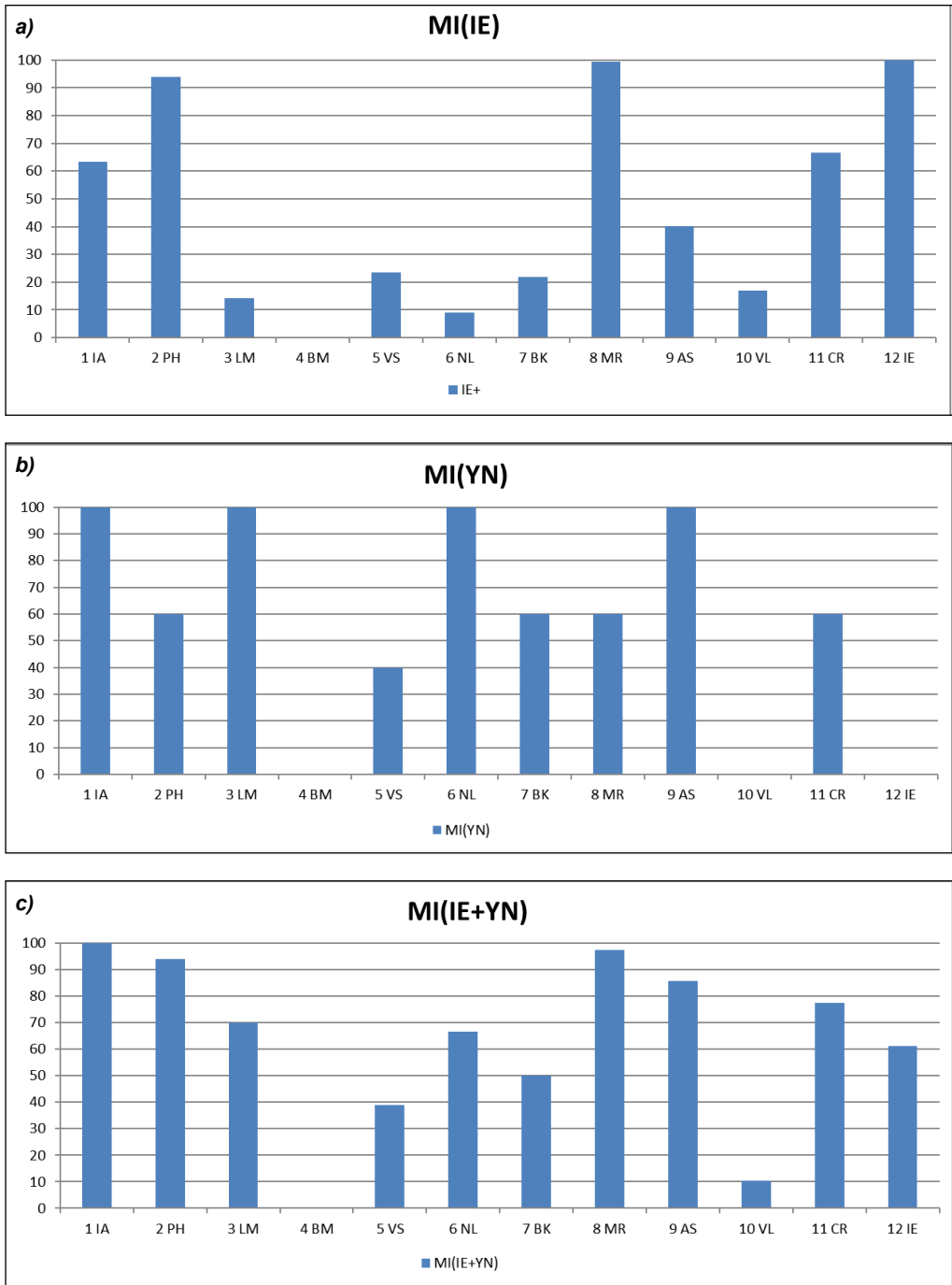
Fig. 1. *MI profile, determined by unconscious (IE) (a), conscious (YN) (b) and integral (IE + YN) (c) psychophysiological response to 24 stimulus questions*
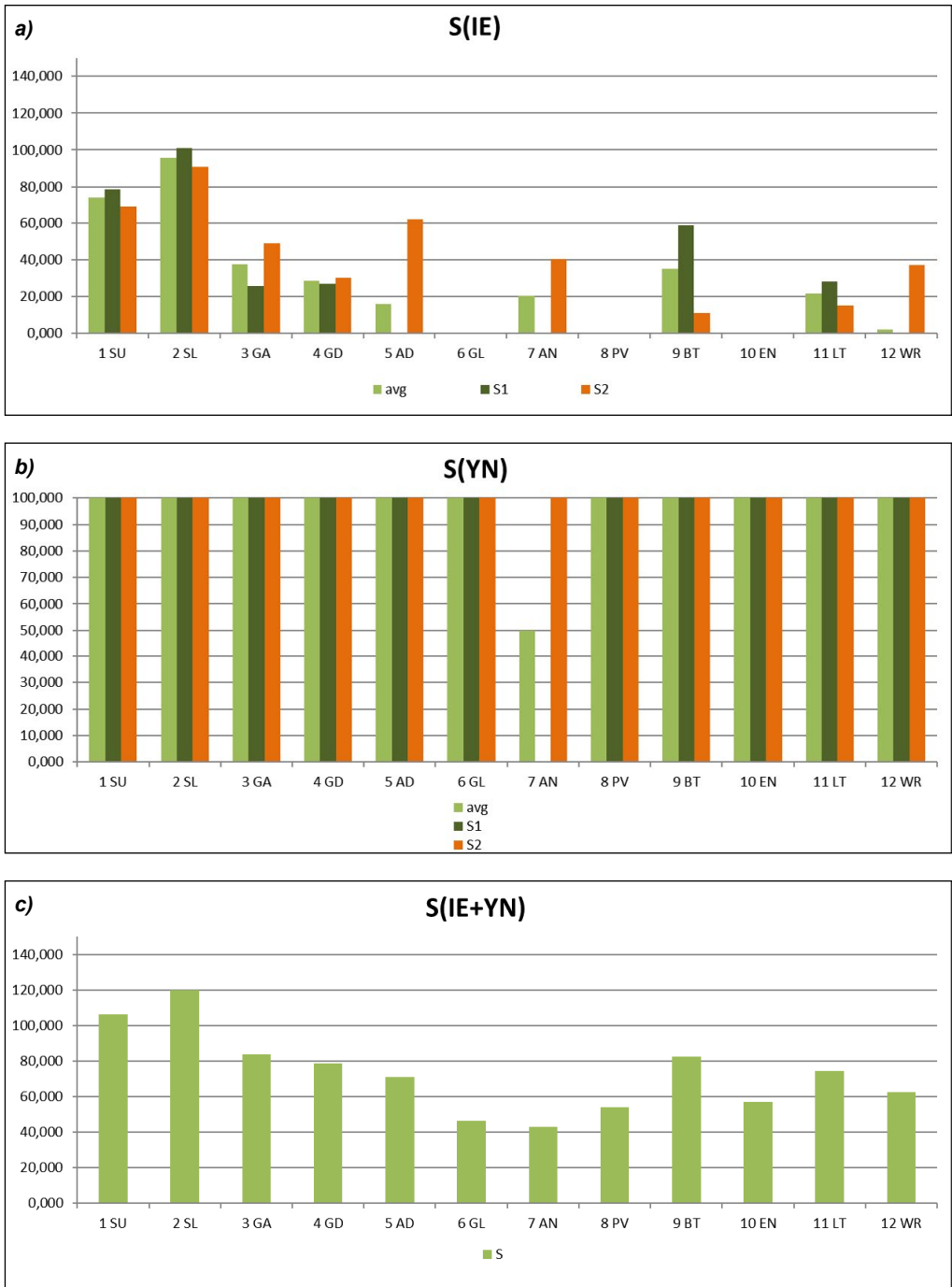
*Fig. 2. SP determined by unconscious (IE) (a), conscious (YN) (b)
and integral (IE + YN) (c) psychophysiological response
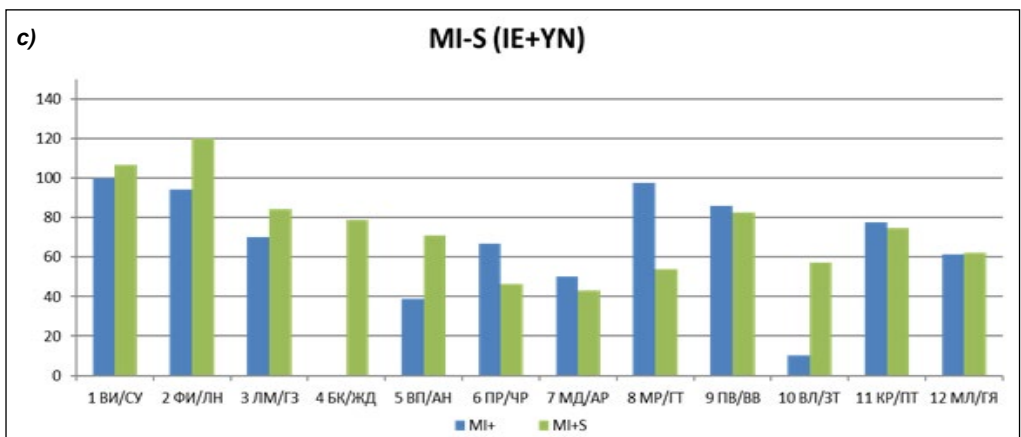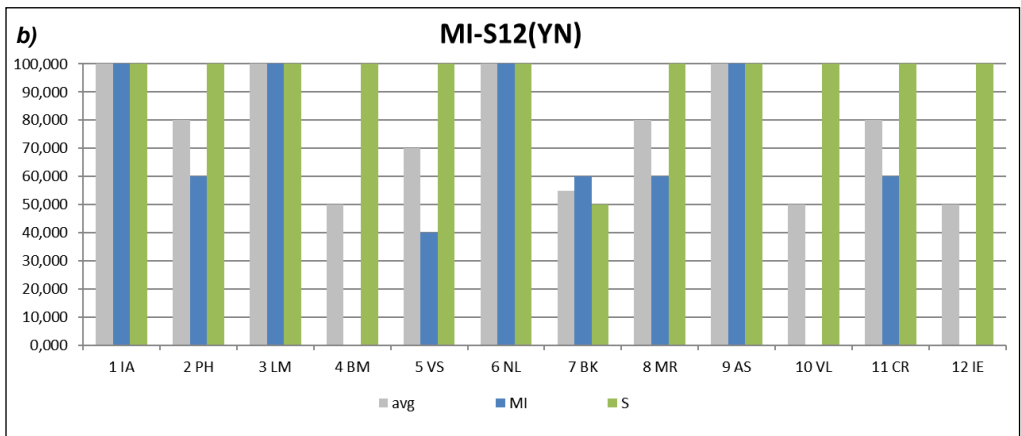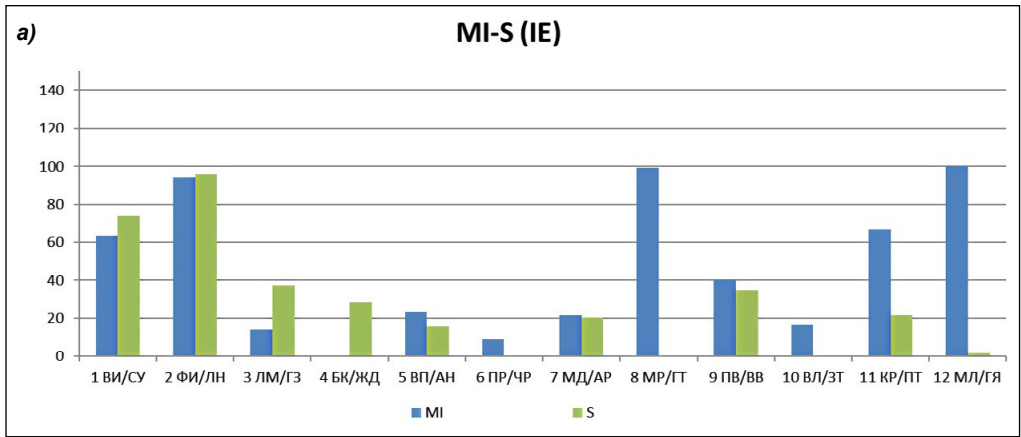to 24 stimulus questions*

Fig. 3. *Profile of MI-Sins on unconscious (IE) (a), conscious (YN) (b)
and integral (IE + YN) (c) psychophysiological response
to 48 stimulus questions*

Table 3

MI-Sins profiles (integral response), arranged in decreasing order of significance
(from top to bottom)

No	MI (IE+YN)			Sins (IE+YN)		
	%	Abbr	MI type	%	Abbr	SP type
1	100,0	IA	Intrapersonal)	119,9	SL	Sloth
2	97,5	MR	Musical-Rhythmic	106,5	SU	Suicide
3	94,2	PH	Philosophical	84,0	GA	Gadget addiction
4	85,8	AS	Ascetic-Sacrificial	82,6	BT	Bribe theft
5	77,6	CR	Creative	78,6	GD	Greed
6	70,0	LM	Logical-Mathematical	74,5	LT	Lust
7	66,8	NL	Naturalistic	70,9	AD	Alcoholism, Drug addiction
8	61,2	IE	Interpersonal	62,4	WR	Wrath
9	50,0	BK	Bodily-Kinesthetic	57,0	EN	Envy
10	38,8	VS	Visual-Spatial	54,0	PV	Pride, Vanity
11	10,3	VL	Verbal-Linguistic	46,2	GL	Gluttony
12	0,0	BM	Business-Mercenary	43,1	AN	Anorexia

In the given example (Fig. 1–3 and Tables 2–3), the subject's level of two Sins in terms of the integral reaction exceeds the average level of the leading types of MI, therefore, Sloth and Suicide are the most relevant SP for the given testing results of the subject in terms of integral psychophysiological responses. Note that in Table 2 Sloth and Suicide are also the most significant Sins for the unconscious responses of the subject, and the conscious reaction confirms the result of the unconscious and transfers the level of these Sins above the maximum response to the leading MI stimulus, that is, increases the level of these two Sins above 100% (maximum MI type).

In addition to digital information about the submarine profile, the MI-Sins program gives SP in the form of pie chart, shown in Figure 4.

The general level SP of a person is determined by equation 1, shows the subject's ratio between SP and two leading types of MI.

$$SP = (Ns > MI) / TNs$$

Where: Ns — number of Sins with level higher average psychophysiological response of two leading MI types

TNs — total number of Sins

For Table 2 testing TNs(ie) = 0,
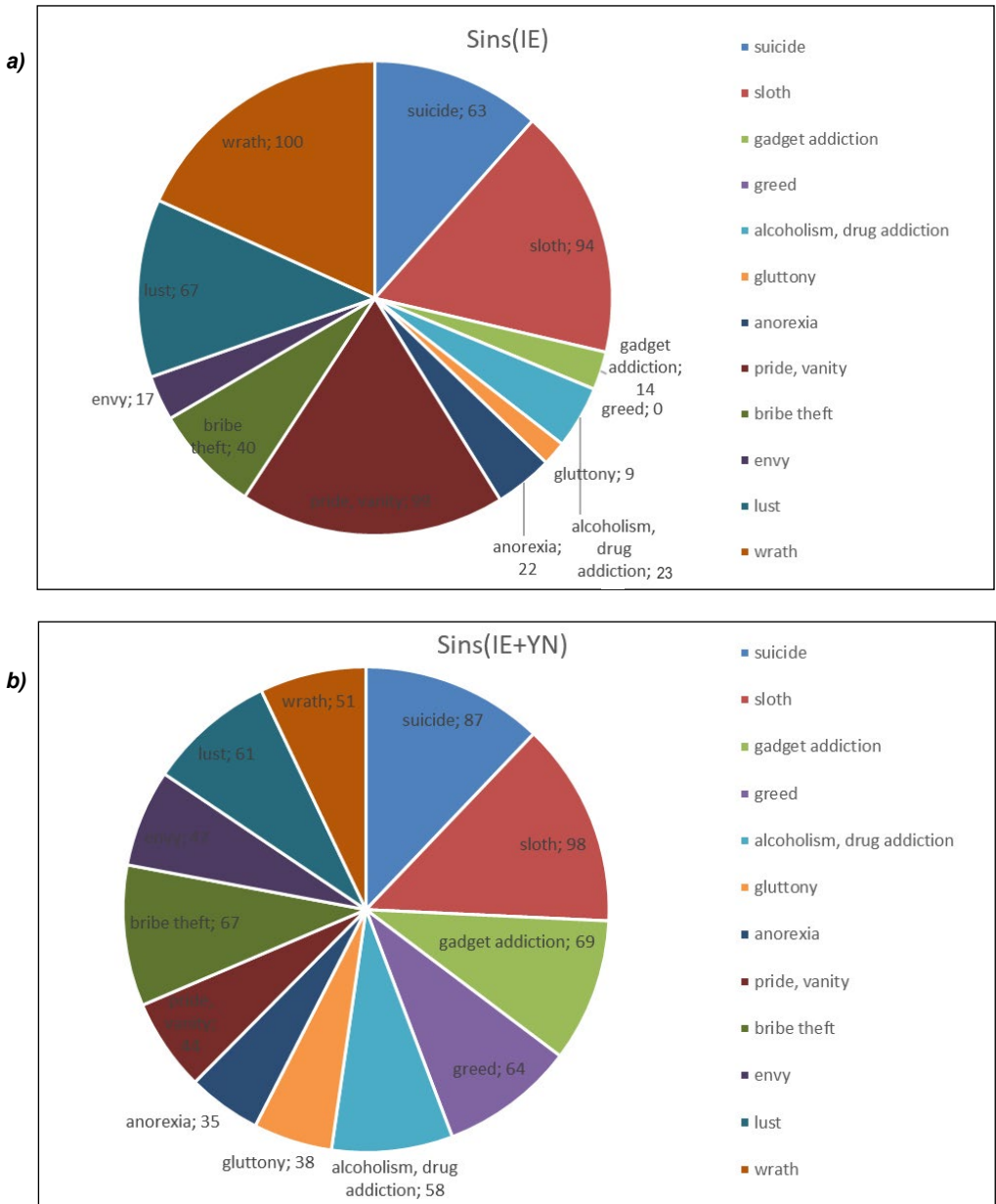
and for Table 3 TNs(ie + yn) = 17%

a)

b)

Fig. 4. SP of unconscious (IE) and integral (IE+YN) psychophysiological response
to 24 stimuli questions

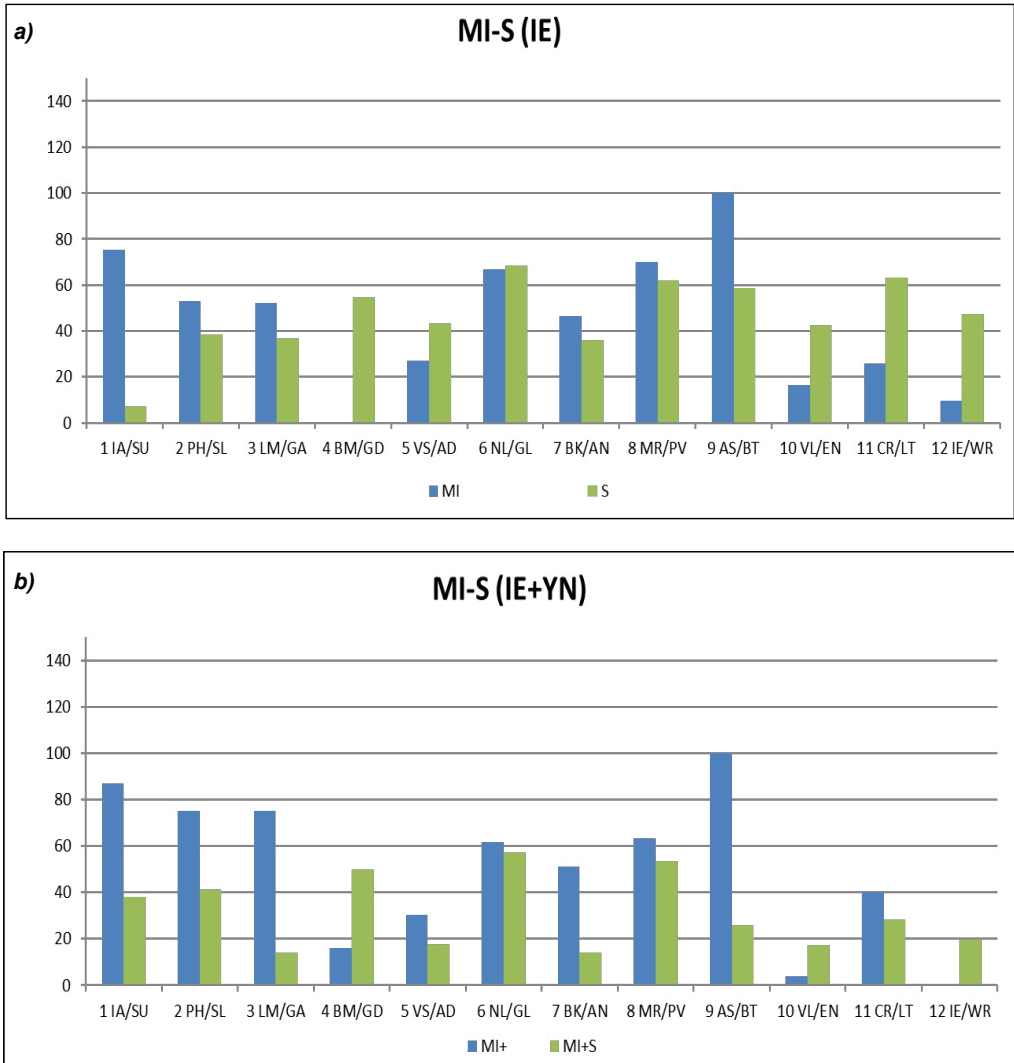The testing results of the person with low sins level presented on Figure 5 and Table 4.

Fig. 5. *The MI-Sins profile of testing person with a SP level below two leading MI level for unconscious (IE) (a) and integral (IE + YN) (b) psychophysiological response to 48 stimuli questions*

MI-Sins profile with Sins level below MI level (unconscious response),
ranged in decreasing order of significance (from top to bottom)

No	MI (IE)			Sins (IE)		
	%	Abbr	MI type	%	Abbr	Sins type
1	100,0	AS	Ascetic-Sacrificial	68,5	GL	Gluttony
2	75,3	IA	Intrapersonal	63,3	LT	Lust
3	70,0	MR	Musical-Rhythmic	61,7	PV	Pride, Vanity
4	66,8	NL	Naturalistic	58,8	BT	Bribe theft
5	53,0	PH	Philosophical	54,7	GD	Greed
6	52,3	LM	Logical-Mathematical	47,4	WR	Wrath
7	46,6	BK	Bodily-Kinesthetic	43,3	AD	Alcoholism, Drug addiction
8	27,2	VS	Visual-Spatial	42,3	EN	Envy
9	25,8	CR	Creative	38,6	SL	Sloth
10	16,5	VL	Verbal-Linguistic	36,6	GA	Gadget addiction
11	9,6	IE	Interpersonal	36,0	AN	Anorexia
12	0,0	BM	Business-Mercenary	7,1	SU	Suicide

MI-Sins profile with Sins level below MI level (integral response),
ranged in decreasing order of significance (from top to bottom)

No	MI (IE+YN)			S (IE+YN)		
	%	Abbr	MI type	%	Abbr	Sins type
1	100,0	AS	Ascetic-Sacrificial	57,2	GL	Gluttony
2	87,0	IA	Intrapersonal	53,6	PV	Pride, Vanity
3	75,3	PH	Philosophical	50,0	GD	Greed
4	75,0	LM	Logical-Mathematical	41,5	SL	Sloth
5	63,3	MR	Musical-Rhythmic	38,1	SU	Suicide
6	61,5	NL	Naturalistic	28,2	LT	Lust
7	51,0	BK	Bodily-Kinesthetic	25,8	BT	Bribe theft
8	40,0	CR	Creative	19,9	WR	Wrath
9	30,3	VS	Visual-Spatial	17,7	AD	Alcoholism, Drug addiction
10	16,0	BM	Business-Mercenary	17,2	EN	Envy
11	3,6	VL	Verbal-Linguistic	14,2	GA	Gadget addiction
12	0,0	IE	Interpersonal	13,8	AN	Anorexia

For the test results shown in Figure 5 and in Tables 4 and 5, all responses to SP stimuli are below the average level of responses two MI leading types, Ascetic and Intrapersonal.

Discussion

The above results and the stated concept of determining the personality profile certainly need further research and the availability of more statistics on the subjects, tied to other existing methods of personality assessment. At the same time, at the moment, we have not yet decided on the priority of the unconscious response or the integral (conscious and unconscious) response of a subject to stimuli, this requires a significantly greater processing of the statistical data. The stimulus material presented in the second part of testing may also need to be corrected, since the first part with the definition of the MI type has been worked out for four years and tens of thousands of tests performed (Minkin, Nikolaenko, 2017; Minkin, 2020a). The proposed concept for determining a personality profile with a symmetrical binding of positive and negative personality traits to the level of extraversion, on the one hand, is based on the confirmed results of previous studies (Minkin, 2020a; 2021a). On the other hand, concept includes several unconfirmed hypotheses and assumptions, the first of which is main sins list of 21st century.

We tried to approach the list of modern Sins carefully and make the most of the historical information about SP, starting with the works of Aristotle (Aristotle, 2020) and Torah (Kleinberg, 2010; Baden, 2012). At the same time, we add 5 additional Sins, which we consider no less significant in the 21st century (Suicide, Cyber-addiction, Acogolism-drug addiction, Anorexia, Theft-bribery) to 7th deadly sins (Sloth, Greed, Gluttony, Pride, Envy, Lust, Anger). A separate publication is presented at the conference on the development of stimuli material to MI-Sins program (Nikolaenko, Minkin 2022), so we will not dwell in detail in this work on the justification of the selected stimuli. The identity and number of SP and MI types is determined more by physical and mathematical considerations than by psychological ones, since the discretization of a personality by less than 10 traits leads to an increase the error in determining the quantitative assessment of each personality trait. An increase in discretization inevitably causes an increase stimuli list and the possibility of uneven fatigability of a subject in testing process.

A person's response to complex stimuli during testing is similar to a chess game with a constantly changing situation. When analyzing the reaction and decision-making of chess players, it was found that in certain cases (chemical exposure in the form of doping) is possible to change brain activity, but only in the case of unlimited time control (Franke et al., 2017). In the case of a short time control of the shamatists (blitz), it was not possible to achieve a change in the brain activity even with the help of doping. Lying should certainly hinder decision-making, in that it is the opposite of doping. This is probably why blitz testing with a stimulus presentation period of 5 seconds gives more truthful information about a person than tests with unlimited or comfortable time to prepare a response to a stimulus (Minkin, 2021a; 2021b) because in blitz there are no possibility to change real brain activity.

Using the already well-known approach of adaptive testing and neuro-linguistic profiling (Minkin, Nikolaenko, 2020), we managed to prepare a questionnaire of 360 stimuli, 72 control for MI (24 random) and 288 multifactor stimuli, from which subjects were presented with only 24 individual stimulus questions, and the total

testing time was only 250 seconds. We assume that such blitz testing program will be actively demanded by the business, since in less than 5 minutes the employer can obtain complete information about the employee, including his optimal abilities and the possible problems of each individual person.

A certain stage on the way to such a general program was requests from various companies and organizations to determine individual SP and addictions. The creation of such a general profiling, will replace local programs, because if in a short time you can find out EVERYTHING about a person's abilities and problems, then why learn only a part of the information in a comparable testing time.

The current program is designed for the profiling of adults and can be used as a way to obtain objective information about SP of the subjects, for example, before obtaining a gun license, driver's license, parole, police, firefighting or holding certain government positions. We believe that the adaptation of this methodology for adolescents will make it possible to identify deviant behavior in schools and will provide significant assistance to school psychologists.

Conclusion

The developed program and methodology use a cybernetic approach to determining the hidden intentions of a person, which previously related more to religious and philo-sophical concepts than to the natural sciences. We believe that the physical measurement of a person's personal characteristics is not only possible, but also the only correct method for objectively determining the profile of the abilities and vices of each person.

A person's response to multifactor stimuli presented by short 5-second period of blitz judgment more accurately and definitely reveals the hidden possibilities and secrets of a person than relatively comfortable testing with stimuli presentation for a period of more than 15 seconds (Minkin, 2021a; 2021b). Lying is primarily a conscious response that requires feedback (Wiener, 1948) like any motion correction. If there is simply no time for feedback, then the person is forced to stimuli respond truthfully.

The arrangement of control and relevant stimuli in a uniform order creates unlimited opportunities for hidden information investigation about a person. We assume that given examples of information processing about MI and SP are only the beginning on the objective path of revealing the light and dark sides of human personality. In the future, we intend to use the capabilities of AI to process available information based on the existing experience in behavioral parameters processing (Minkin et al., 2020; Akimov, Minkin, 2021).

References

1. Aristotle (2020) Ethics. M., Eksmo.
2. Akimov, V. A., Minkin, V. A. (2021) Determination of significant behavioral parameters on COVID-19 diagnosis by artificial Neural Networks modeling, Proceedings of the 4th International Open Science Conference: Modern Psychology, The Vibraimage Technology, 24–25 June 2021, St. Petersburg, Russia. https://doi.org/10.25696/ELSYS.VC4.EN.06

3. Baden, Joel S. (2012) The Composition of the Pentateuch: Renewing the Documentary Hypothesis, New Haven & London: Yale University Press.
4. Behnke, M. et al. (2021) Head Movement Differs for Positive and Negative Emotions in Video Recordings of Sitting Individuals, Nature Scientific Reports.
https://doi.org/10.1038/s41598-021-86841-8
5. Bernstein, N. A. (1967) The Co-Ordination and Regulation of Movements, Pergamon Press, Oxford.
6. Blank, M. A., Blank, O. A. (2010) Chronobiomedicine for Oncology. St. Petersburg: Nika (In Russ.).
7. Brud, P. P., Cieciuch, J. (2020) Polish Adaptation of the Vices and Virtues Scales (VAVS), Mental Health, Religion & Culture, 23:6, pp. 494–506. DOI:10.1080/13674676.2019.1635575
8. Darwin, C. (1872) The Expression of the Emotions in Man and Animals. John Murray, London.
9. Drayton, M. (2009) The Minnesota Multiphasic Personality Inventory-2 (MMPI-2), Occupational Medicine, Vol. 59, Issue 2, March 2009, pp. 135–136. https://doi.org/10.1093/occmed/kqn182
10. Eysenck, H. J. (1981) A model of personality, NY: Springer.
11. Franke, G. F. et al. (2017) Methylphenidate, Modafinil, and Caffeine for Cognitive Enhancement in Chess: A Double-Blind, Randomised Controlled Trial, European Neuropsychopharmacology, Vol. 27, Issue 3, March 2017, pp. 248–260. https://doi.org/10.1016/j.euroneuro.2017.01.006
12. Gardner, H. (1983) Frames of Mind: The Theory of Multiple Intelligences. NY: Basic book.
13. Gardner, H. (2009) Five Minds for the Future. Harvard Business Review P.
14. Gardner, H. (2020) A Synthesizing Mind: A Memoir from the Creator of Multiple Intelligences Theory, The MIT Press.
15. Halberg, F. (1987) Perspectives of Chronobiologic Engineering, NATO ASI Series, Vol. 120, pp. 1–46.
16. Kleinberg, A. (2010) Seven Deadly Sins: A Very Partial List, Belknap Press: An Imprint of Harvard University Press; Translation edition (October 30, 2010).
17. Leonhard, K. (1976) Akzentuierte Persönlichkeiten. Berlin: Acad. Verlag.
18. Lorenz, K. (1963) Das Sogenannte Böse zur Naturgeschichte der Aggression. Original edition: Verlag Dr. G Borotha-Schoeler.
19. Minkin, V. A., Shtam, A. I. (2002) Method and Device for Image Transformation (based RU2187904 (2000)); US7346227. PCT Pub. Date: Jun. 27, 2002.
20. Minkin, V. A., Nikolaenko, N. N. (2008) Application of Vibraimage Technology and System for Analysis of Motor Activity and Study of Functional State of the Human Body, Biomedical Engineering, 2008, Vol. 42, No. 4, pp. 196–200. https://doi.org/10.1007/s10527-008-9045-9
21. Minkin, V. A. (2017) Vibraimage. St. Petersburg: Renome.
https://doi.org/10.25696/ELSYS.B.EN.VI.2017
22. Minkin, V. A., Nikolaenko, Y. N. (2017). Vibraimage and Multiple Intelligences. St. Petersburg: Renome. https://doi.org/10.25696/ELSYS.B.EN.VIMI.2017
23. Minkin, V., Myasnikova, E. (2018) Using Vibraimage Technology to Analyze the Psychophysiological State of a Person During Opposite Stimuli Presentation, Journal of Behavioral and Brain Science, 2018, Vol. 8, pp. 218–239. DOI: 10.4236/jbbs.2018.85015
24. Minkin, V. A. (2019) About the Accuracy of Vibraimage Technology, Proceedings of the 2nd International Open Science Conference: Modern Psychology. The Vibraimage Technology, 25–26 June, St. Petersburg, Russia, pp. 294–305. https://doi.org/10.25696/ELSYS.VC2.EN.14
25. Minkin, V. A., Blank, M. A. (2019) Psychophysiological Formation of Brain Activity Rhythm, Proceedings of the 2nd International Open Science Conference: Modern Psychophysiology. The Vibraimage Technology, 25–26 June 2019, St. Petersburg, Russia, pp. 232–239. https://doi.org/10.25696/ELSYS.VC2.EN.6
26. Minkin, V. (2020a) Vibraimage, Cybernetics and Emotions. St. Petersburg: Renome. https://doi.org/10.25696/ELSYS.B.EN.VCE.2020

27. Minkin, V. (2020b) Method of Evaluating Psychophysiological State of a Person, US 2020/00832, Pub. Date Mar.19, 2020.
28. Minkin, V. A. et al. (2020) COVID-19 Diagnosis by Artificial Intelligence Based on Vibraimage Measurement of Behavioral Parameters, Journal of Behavioral and Brain Science, 2020, Vol. 10, pp. 590–603. https://doi.org/10.4236/jbbs.2020.1012037
29. Minkin, V. A., Nikolaenko, Y. N. (2020). Adaptive Psychological Testing. Combination of Pre-Testing and Basic Testing in Neuro-Linguistic Profiling, Proceedings of the 3rd International Open Science Conference: Modern Psychophysiology. The Vibraimage Technology. June 2020, St. Petersburg, Russia, pp. 204–212. https://doi.org/10.25696/ELSYS.02.VC3.EN
30. Minkin, V. A., Blank, M. A. (2021) Psychophysiology and Homeokinesis. Synchronization of Stimuli Presentation to Chronobiological Processes, Proceedings of the 4th International Open Science Conference: Modern Psychophysiology. The Vibraimage Technology, 24–25 June 2021, St. Petersburg, Russia, pp. 269–280. https://doi.org/10.25696/ELSYS.VC4.EN.05
31. Minkin, V. (2021a) Psychophysiological Response Dynamics to Visual Stimuli Depending on Presentation Period, Proceedings of the 4th International Open Science Conference: Modern Psychology. The Vibraimage Technology, 24–25 June 2021, St. Petersburg, Russia, pp. 245–256. https://doi.org/10.25696/ELSYS.VC4.EN.03
32. Minkin, V. (2021b) Calculation of Psychophysiological Responses to Multifactorial Stimuli in the Adaptive Questionnaire of Personality Characteristics Dispersion into Independent Components. Kuleshov Effect Comeback to Psychophysiology, Proceedings of the 4th International Open Science Conference: Modern Psychology. The Vibraimage Technology, 24–25 June 2021, St. Petersburg, Russia, pp. 257–268. https://doi.org/10.25696/ELSYS.VC4.EN.04
32. Nikolaenko, Y. N. (2020) Stimuli Development and Approbation for Adaptive Testing of Various Extremism Forms, Proceedings of the 3rd International Open Science Conference: Modern Psychophysiology. The Vibraimage Technology, (English Edition), 25–26 June 2020, St. Petersburg, Russia, pp. 57–62. https://doi.org/10.25696/ELSYS.06.VC3.EN14.
33. Nikolaenko, Y. N., Minkin, V. A. (2022) Multifactor Stimuli for Blitz Judgement of Multiple Intelligences and Personality Vices, Proceedings of the 5th International Open Science Conference: Modern Psychophysiology. The Vibraimage Technology, 24–25 June 2022, St. Petersburg, Russia, pp. 70–84. https://doi.org/10.25696/ELSYS.VC5.EN.05
34. Mira y Lopez, E. (1957) Psychodiagnostico Miokinetiko. Buenos Aires: Paidos.
35. Pushkin, A. S. (1831) Mozart and Salieri. Almanac "Northern Flowers" (In Russ.).
36. Wiener, N. (1948) Cybernetics: Or Control and Communication in the Animal and the Machine. Paris, (Hermann&Cie) & Camb. Mass. MIT, 2nd revised ed. 1961.
37. Zondi, L. (1998) A Textbook of Experimental Diagnosis of Incentives, ed. and foreword. V. V. Jos. Chisinau (In Russ.).