PSYCHOLOGICAL ASPECTS OF THE DECISION-MAKING PROCESS: THE INFLUENCE OF PERSONAL CHARACTERISTICS ON CHOICE STRATEGIES IN THE FACE OF INSTABILITY

ASPECTOS PSICOLÓGICOS DO PROCESSO DE TOMADA DE DECISÃO: A INFLUÊNCIA DAS CARACTERÍSTICAS PESSOAIS NAS ESTRATÉGIAS DE ESCOLHA DIANTE DA INSTABILIDADE

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Abstract. The aim of the article is to empirically find out the specifics of the correlation between the decision-making process and the personal qualities of representatives of various professions in the face of social instability. The study used the Melbourne Decision Making Questionnaire (MDMQ) and the Freiburg Personality Inventory (FBI). The hypothesis that decision-making processes are related to personal qualities and differ among representatives of different professions in the face of social instability was confirmed. It was found that the respondents mostly prefer a rational way of making decisions. However, a fifth of the respondents are characterized by the dominance of the avoidance strategy. No persons with pronounced procrastination were found. Doctors and programmers have emotional control and reduced aggressive reactions in the decision-making process. Social orientation of life choices is typical for teachers. IT specialists often use the avoidance strategy. Conclusions: In general, the peculiarities of decision-making strategies in the conditions of war are determined, which can be extrapolated to similar situations of military instability on the planet. The obtained results can be used in the process of developing programmes of professional development and psychological assistance of individuals in times of war. Research prospects may be the study of the gender aspect of decision-making.

Keywords: Avoidance; Decision-Making; Over-Vigilance; Personal Qualities; Individual Psychological Features; Procrastination; Vigilance; Aggression

Resumo. O objetivo do artigo é descobrir empiricamente as especificidades da correlação entre o processo de tomada de decisão e as qualidades pessoais de representantes de várias profissões diante da instabilidade social. O estudo utilizou o Melbourne Decision Making Questionnaire (MDMQ) e o

Freiburg Personality Inventory (FBI). A hipótese de que os processos de tomada de decisão estão relacionados às qualidades pessoais e diferem entre representantes de diferentes profissões diante da instabilidade social foi confirmada. Foi descoberto que os entrevistados preferem principalmente uma forma racional de tomar decisões. No entanto, um quinto dos entrevistados é caracterizado pelo domínio da estratégia de evitação. Nenhuma pessoa com procrastinação pronunciada foi encontrada. Médicos e programadores têm controle emocional e reações agressivas reduzidas no processo de tomada de decisão. A orientação social das escolhas de vida é típica para professores. Especialistas em TI costumam usar a estratégia de evitação. Conclusões: Em geral, são determinadas as peculiaridades das estratégias de tomada de decisão nas condições de guerra, que podem ser extrapoladas para situações semelhantes de instabilidade militar no planeta. Os resultados obtidos podem ser usados no processo de desenvolvimento de programas de desenvolvimento profissional e assistência psicológica de indivíduos em tempos de guerra. As perspectivas de pesquisa podem ser o estudo do aspecto de gênero da tomada de decisão.

Palavras-chave: Evitação; Tomada de decisão; Vigilância excessiva; Qualidades pessoais; Características psicológicas individuais; Procrastinação; Vigilância; Agressão

1. INTRODUCTION

The war is a challenge that destabilizes global security and radically worsens the social and humanitarian situation in the country. The largest military conflict in Europe since the end of the Second World War, which unfolded on the territory of Ukraine, significantly changed the lives of citizens. The situation of global instability actualizes the task of researching the life strategies of people who find themselves in such circumstances.

The studies of the phenomenon of decision-making have great practical significance, as it determines the dynamics of all social spheres (1). Such studies have limitations related to the difficulties of diagnosing a real, rather than a simulated, situation of alternative evaluation (2). There is no doubt that a theoretically and empirically grounded understanding of the essence of life choices will help people to approach their lives more consciously and reduce the risk of future disappointments (3).

In general, the decision-making strategy is influenced by the specifics of the activity, the personality structure, and the features of the social situation.[4] The personal qualities of an individual are particularly important for the development of relevant competencies.[5] Studies of the psychological specifics of decision-making in the face of uncertainty are relevant.[6,7] These results were obtained in the context of the study of political and economic processes, as well as game theory.

At the same time, the psychological mechanisms of making life decisions among representatives of various professions are insufficiently clarified. Establishing the connection between the personal structure and the realization of life choices in the context of acquired professional experience opens up new opportunities for theoretical understanding of the problem. The collection of relevant empirical data in the face of social instability caused by the Russian-Ukrainian war creates a foundation for optimizing individual psychological assistance programmes.

The aim of the article is to empirically find out the specifics of the connection between the decision-making process and the personal qualities of representatives of various professions in the face of social instability. Research objectives:

1) determine the criteria of the decision-making mechanism in the context of social instability;
2) identify the dominant decision-making strategies of representatives of various professions in the face of instability;
3) establish a statistical relationship between the decision-making strategy and personal qualities depending on the type of professional activity.

2. LITERATURE REVIEW

The decision-making process is interpreted as an act of choosing from several alternatives oriented towards achieving a goal.[10] This is an important skill that is crucial for adapting to the surrounding environment and ensuring autonomy.[11] The physiological basis of the realization of life choices is the systemic functioning of the frontal cortex of the brain, the limbic system, and the cerebellum.[12,13]

This aspect is related to the cognitive component of decision-making, as it determines the ability to inhibit adverse reactions and focus on more positive behavioural options.[14] The effectiveness of the studied process is significantly increased when using clear algorithms for evaluating circumstances and possible options for selection.[15,16] However, researchers emphasize that life choices are realized as a result of a constant conflict between two systems in the psyche - conscious, controlled and emotional, intuitive.[17]

Decision-making can be complicated because of a number of external factors, in particular, high uncertainty or contradiction of the situation, increased responsibility, time constraints.[18] In particular, social support is a positive factor in the optimal decision-making mechanism.[19]

The choice situation is complicated by the blurring, vagueness of future actions and their consequences.[20] This problem is especially aggravated in the face of social instability. In this context, individuality becomes particularly relevant, which determines the differentiation of behaviour depending on the dominance of certain personal constructs.[21]

Decision-making styles are most systematically affected by such qualities as neuroticism, agreeableness, conscientiousness, extraversion, openness[22,23]. A study by El Othman et al.[24] found that extraversion is inversely correlated with rational decision-making and directly correlated with intuition. At the same time, intuitive decision-making is inversely correlated to conscientiousness.

Neuroticism correlates with an inclination to make spontaneous life choices. Avoidant style is not significantly related to individual personality characteristics. There are data indicating a negative impact of extraversion on the quality of life decisions.[25] Rand et al.[26] prove a relationship between altruism and women's inclination to make intuitive decisions compared to men.

Special attention should be paid to the consideration of personality aggressiveness within the scope of the research topic. In particular, it is relevant to find out the gender differences in the manifestations of personality aggression in boys and girls.[27] In particular, a predominance of high indicators of aggression in males was found.

At the same time, boys are more oriented towards physical aggression, while girls prefer verbal aggression. Propensity to aggression is associated with behavioral rigidity and offensiveness of females. In men, aggressiveness is associated with a level of irritability and a desire to ignore generally accepted social norms.

Taking into account the received data in decision-making processes is the basis for creating more rational, free of impulsiveness, strategies for life choices. Data on gender differences in personal structure are also valuable.

A separate promising direction of research is the study of decision-making features in situations of uncertainty, which is almost always present in the assessment of life circumstances.[28] In particular, it was established that economic factors interacting with personal traits change the picture of choice in the face of instability.[29]

The search for clear, mathematical decision-making algorithms in the situations of uncertainty is relevant,[30] which is difficult to implement in the context of life situations and the structure of a particular person's psyche. It should be taken into account that the situation of uncertainty is associated with a certain risk, the assessment of which differs depending on the nation and social group.[31]

So, the theoretical analysis of the problem confirms the high level of academic knowledge on the personal structure of decision-making in the psychological literature. At the same time, the social context significantly determines the specific psychological features of the life choice process. Therefore, it is promising to study the personal characteristics of decision-making in the face of instability associated with military operations. The issue of the dependence of decision-making on professional activity is also insufficiently studied.

3. METHODS AND MATERIALS

The *research stages* are described separately on the basis of the natural science paradigm. Determining the research topic, which was based on the academic interests and previous experience of the authors of the article.

The literature review and the selection of diagnostic tools gave grounds to distinguish the following decision-making strategies: vigilance (rationality, thoughtfulness of actions); avoidance – distancing from a problematic situation; procrastination — constantly postponing an important choice; over-vigilance — increased anxiety when making life choices. A number of personal qualities that have become the object of diagnostics were also determined.

The research hypothesis is formulated that decision-making processes are related to personal qualities and differ among representatives of various professions in the face of social instability.

The Research planning was the allocation of available resources and determining the research algorithm. In particular, much attention was paid to the definition of the sample in accordance with the differentiation of the study of decision-making by professional groups.

The possibilities of formation of research groups were established. At this stage, methodical and organizational aspects of the future research were evaluated by independent experts.

An important aspect of the stage of the collection and analysis of research data was checking the researchers' competence in using methods and diagnostic tools. Test methods and thorough procedures of mathematical statistics are used.

The conclusions were drawn in the context of determining the relationship between the specifics of decision-making and the personal characteristics of the subjects. A structural method of interpretation was used, which involved comparing the results of the studied samples.

Instruments

The Melbourne Decision Making Questionnaire (MDMQ) adapted to the Ukrainian language was used to study the specifics of making a life choice. This diagnostic tool determines a person's inclination to one of four decision-making strategies: vigilance, over-vigilance, avoidance, procrastination.

The questionnaire meets the validity and reliability requirements, which is confirmed by its regular use in different countries.[8] The Freiburg Personality Inventory (FBI) was used to diagnose the personality structure.

The tool determines the level of development of such personal characteristics as neuroticism, spontaneous aggressiveness, depression, irritability, sociability, balance, reactive aggressiveness, shyness, openness, extroversion, emotional lability, masculinity. The method meets basic psychometric requirements.[9]

Sample

The study involved medical specialists (doctors of various profiles), teachers (secondary school), IT specialists (programmers and analysts). The quantitative composition of each of the three samples is 50 people. The total number of subjects is 150 people.

The gender distribution of the subjects reflected the trends of a particular speciality. The residents of Kyiv, Cherkasy, and Sumy participated in the study. The average work experience is 5–15 years. An important criterion for selection into the sample was the stay of specialists in the territory of Ukraine in the last two years. This approach made it possible to find out the peculiarities of decision-making in the face of social instability.

The samples were formed on the basis of randomization, which increased the representativeness of the study. Informing and establishing contacts with research participants was realized through personal contacts and social networks. Qualitative characteristics of the obtained samples provide opportunities to fully test the research hypothesis.

Data collection

The diagnostic methods were applied with the participation of the authors of the article. Empirical data were collected online using Google forms in September – October 2023. Considering the large number of tools used, they were implemented separately with an interval of several weeks.

Before applying the methodology, the subjects were gathered at the video conference and motivated for further cooperation. The research design implied a refusal to participate in the diagnostics, but no one took advantage of this opportunity.

The data analysis was based on the calculation of percentages and Pearson's correlation analysis. SPSS.22 was used in the study. It is worth noting that coefficients marked with an asterisk indicate significance at the p=0.05 level, and two asterisks indicate significance at p=0.01.

An automated approach to empirical data analysis minimizes the Pygmalion effect. On the basis of the obtained numerical indicators, a comparison of the obtained metric indicators was carried out with the subsequent conclusions.

Ethical criteria

The used methods were analysed by experts for compliance with deontological principles. It was established that the content of the diagnostic tools and the general research scheme do not violate ethical criteria. The participation of the subjects in the collection of information was voluntary. The confidentiality of the received information was strictly maintained. The authors declare that there is no conflict of interest in the process of conducting the research.

4. RESULTS

The analysis of the obtained data is carried out in two planes — the characterization of the dominant life choice strategy within the studied professions and the determination of the correlation between decision-making and personal traits. Table 1 presents the distribution of decision-making strategies for each sample.

Table 1. Distribution of the results of the decision-making strategy research in the studied samples

Sample	Dominant decision-making strategy			
	Vigilance	Over-vigilance	Procrastination	Avoidance
Doctors	54	28	0	18
Teachers	30	44	6	20
IT specialists	60	6	4	30

The vigilance strategy dominates in more than half of doctors and IT specialists. This method of decision-making is also characteristic of a third of the surveyed teachers. The insufficiency of a rational approach in the implementation of life strategies is recorded among teachers.

The dominance of the over-vigilance strategy, which implies increased anxiety, is characteristic of teachers. This strategy is the least pronounced among programmers — only a few such people have been recorded. The dominance of over-vigilance is typical for a third of the studied doctors. Constant postponement of decision-making (procrastination) is the least popular life strategy in all studied groups, only 5 such persons from the total sample were recorded.

The avoidance strategy is most characteristic of IT specialists (30% of respondents). Such a decision-making mechanism was approximately equally distributed in the samples of doctors and teachers (18-20%) (Table 2).

Table 2. Correlation matrix of decision-making and personal qualities in the sample of doctors

Sample	Dominant decision-making strategy			
	Vigilance	Over-vigilance	Procrastination	Avoidance
Neuroticism	0.023	0.345**	0.003	-0.132
Spontaneous aggressiveness	0.043	-0.023	0.056	0.002
Depression	0.032	0.002	0.004	0.045
Irritability	-0.396**	0.003	-0.111	0.009
Sociability	0.043	0.194	-0.023	0.005
Balance	0.119	-0.298*	-0.222	0.122
Reactive aggressiveness	0.023	0.009	0.211	-0.290*
Shyness	-0.092	0.423**	0.021	-0.020
Openness	0.011	0.016	0.201	0.023
Extroversion	0.194	0.059	0.117	0.003
Emotional lability	0.030	0.005	0.041	0.008
Masculinity	0.002	0.166	0.098	0.220

Peculiarities of the relationships between personal characteristics and decision-making mechanisms of doctors are presented in Table 2. The rational life choice strategy has significant inverse correlation with irritability only (r=-0.396; p=0.01). Therefore, reducing irritation and, accordingly, increasing self-control potentially contributes to careful analysis of the life choice situation of doctors. According to other parameters, the vigilance strategy does not have significant correlation indicators. The over-vigilance approach has significant correlation with neuroticism (r=0.345; p=0.01). The identified trend confirms the combination of the studied life decision strategy with anxiety, sensitivity, and emotional instability. An inverse significant correlation with balance (r = -0.298, p = 0.05) and a direct correlation with shyness (r = 0.423, p = 0.01) was also recorded. According to other parameters, the "persistence" strategy has no significant relationships. The over-vigilance strategy does not have a statistically relevant correlation with any parameter of the personal sphere of doctors. Procrastination of decisions important to a person among medical specialists is inversely correlated with only reactive aggressiveness (r = -0.290, p = 0.05). That is, the avoidance of an important choice can be influenced by distancing oneself from conflicts associated with unfair treatment of a person.

The specifics of the correlation between personal characteristics and decision-making mechanisms of teachers is shown in Table 3.

Table 3. Correlation matrix of decision-making and personal qualities in a sample of teachers

Sample	Dominant decision-making strategy			
	Vigilance	Over-vigilance	Procrastination	Avoidance
Neuroticism	0.349**	0.345**	0.044	0.119
Spontaneous aggressiveness	0.033	-0.111	0.066	0.022
Depression	0.110	0.029	0.077	0.052
Irritability	-0.121	0.035	-0.199	0.099
Sociability	0.452**	0.194	-0.112	-0.333**
Balance	0.434**	-0.233	-0.109	0.239
Reactive aggressiveness	0.116	0.008	0.121	-0.202

Shyness	-0.182	0.110	0.029	0.029
Openness	0.009	0.022	0.232	-0.289*
Extroversion	0.399**	0.055	0.043	0.004
Emotional lability	0.032	0.006	0.044	0.101
Masculinity	0.005	0.114	0.003	0.225

In this group, the vigilance strategy is significantly correlated with neuroticism (r=0.349; p=0.01). This means that a rational approach to the life choices of teachers is associated with increased anxiety. Significant correlation coefficients of vigilance strategy with sociability (r=0.452; p=0.01), balance (r=0.434; p=0.01), and extraversion (r=0.399; p=0.01) were also found.

It is interesting that teachers are characterized by a certain emotional ambivalence in making rational decisions, which reflects a combination of anxiety and balance. They are also more socially oriented in life choices compared to doctors. The over-vigilance strategy is significantly related only to neuroticism (r=0.345; p=0.01).

Procrastination did not correlate with any of the studied personality parameters. Indicators of the avoidance strategy have inverse correlations with sociability (r=-0.333; p=0.01) and openness (r=-0.289; p=0.05). We see that the teachers' desire to distance themselves from life problems and important choices is realized in combination with a decreased level of social activity.

The specifics of correlations between personal characteristics and decision-making mechanisms of IT specialists are shown in Table 4.

Table 4. Correlation matrix of decision-making and personal qualities in a sample of IT specialists

Sample	**Dominant decision-making strategy**			
	Vigilance	**Over-vigilance**	**Procrastination**	**Avoidance**
Neuroticism	0.007	0.066	0.007	0.003
Spontaneous aggressiveness	0.002	-0.002	0.009	0.008
Depression	0.008	0.003	0.104	0.233
Irritability	-0.433**	0.088	-0.175	0.092
Sociability	0.004	0.105	-0.202	-0.385**
Balance	0.121	-0.288*	-0.209	0.398**
Reactive aggressiveness	-0.444**	0.009	0.208	-0.088
Shyness	-0.022	0.034	0.129	-0.221
Openness	0.009	0.006	0.229	-0.323**
Extroversion	0.181	0.081	0.119	0.008
Emotional lability	0.110	0.095	0.040	-0.356**
Masculinity	0.003	0.001	0.009	0.008

The vigilance strategy has inverse correlations with irritability (r=-0.433; p=0.01) and reactive aggressiveness (r=-0.444; p=0.01). It can be assumed that rational decision-making in programmers is related to anger control in social interaction. The vigilance strategy among IT specialists has an inverse correlation with balance (r=-0.288; p=0.05).

Procrastination again has no significant correlation with personality characteristics. The avoidance strategy of IT specialists has inverse correlations with sociability (r=-0.385; p=0.01), openness (r=-0.323; p=0.01), and emotional lability (r=-0.356; p=0.01). At the same time, direct correlations between this strategy and balance were recorded (r = 0.398; p = 0.01).

It is worth noting that such personal characteristics as spontaneous aggressiveness, depression, and masculinity are not at all related to decision-making strategies. The obtained results are the basis for creating a psychological model of decision-making in the context of professional activity.

5. DISCUSSION

The research results confirm our research hypothesis. In general, the respondents prefer a rational way of making decisions. The low relevance of procrastination is explained by the crisis conditions of life —making quick choices is often a condition of survival during wartime. At the same time, avoidance of choice is characteristic of the fifth of the respondents. The results provide grounds for a psychological characteristics of decision-making by representatives of different professions. Emotional control and reduction of aggressive reactions in the process of making an important life choice is recorded in the studied doctors, uncertainty in decisions correlates with neuroticism and shyness.

Teachers are the most socially oriented in decision-making. It can be assumed that it is especially important for them to take into account other people's opinions in the process of evaluating behavioural options. Expressed emotional control during life choices is also characteristic of IT specialists. However, compared to the sample of doctors, programmers have a more developed strategy of avoiding decisions, which implies a decreased social activity.

In general, the correlation between decision-making and certain personality characteristics was recorded, which confirms the results of previous studies.(5) In particular, the influence of neuroticism on decision-making was revealed.(23) At the same time, the obtained results indicate that the avoidance strategy has correlations with certain personal qualities. This conclusion contradicts the data of other researchers.(24) We also cannot confirm the negative impact of extraversion on life decision effectiveness.(25) The identified differences are explained by the cultural differences of the studied samples.

Improving the quality of the decision-making process involves understanding the neuropsychological and cognitive features of its nature.(13) Studies of the specifics of the development of clear selection algorithms seem promising.(16) It is also advisable to use reflection to better understand the unconscious aspects of the decision-making process.(17) Providing adequate social support is also a relevant tool for optimizing life choices.(19) An important point is the consideration of economic factors.(29) The specifics of the processes in the primary groups accompanying the risk assessment of the options for possible actions should be recorded.(32)

6. CONCLUSION

The relevance of the study of personal characteristics of decision-making in the context of acquired professional experience is determined by the possibility of supplementing and improving the psychological theory of life choice. In addition, the significance of the research is determined by the possibility of obtaining scientific conclusions about the peculiarities of life strategies of the individual in a situation of global, social instability of a military nature. The collection of such empirical data in the conditions of the Russian-Ukrainian war makes it possible to take into account the socio-cultural aspect of the study.

The hypothesis that decision-making processes are related to personal qualities and differ among representatives of various professions in the face of social instability was confirmed. It was found that the subjects mostly prefer a rational way of making decisions. However, a fifth of the respondents are characterized by the dominance of the avoidance strategy. No persons with pronounced procrastination were found. Anxiety in decision-making is most characteristic of a sample of teachers.

Doctors and programmers have emotional control and reduced aggressive reactions in the decision-making process. Teachers are characterized by a social orientation of life choices, which may be related to the relevance of other people's opinions for decision-making. IT specialists often use the avoidance strategy.

The identified differences in decision-making by representatives of various specialities are explained by the peculiarities of the subjects' professional activity. In general, the peculiarities of decision-making strategies in the conditions of war are determined, which can be extrapolated to similar situations of military instability on the planet. The obtained results can be used for developing programmes of professional development and psychological assistance of individuals in wartime.

An interdisciplinary approach to evaluating the obtained results will help to develop effective decision-making algorithms depending on the professional context. The research prospects are the study of the gender aspect of decision-making. The study of neuropsychological decision-making mechanisms opens up opportunities for a deeper understanding of the process.

LIMITATIONS

The accuracy of the results will increase with the expansion of the quantitative composition of the studied sample. Also, in order to obtain more representative data, the samples should be classified by length of service and the range of studied specialists should be expanded.

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