

CORRELATION BETWEEN TIME PERSPECTIVE AND DEFENSE MECHANISMS OF UKRAINIAN STUDENTS DURING THE WAR

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ABSTRACT

Aim. The article is aimed at proving the hypothesis that there are significant correlations between the defense mechanisms and the perception of time perspective in young people under the conditions of war.

Methods. The study was held in May 2022 with the involvement of students who were relocated to the west of Ukraine from the eastern regions due to active hostilities. The following research methods were used: survey; psychological testing (Life Style Index, Zimbardo Time Perspective Inventory); statistic analysis.

Results. The study shows that the most common defense mechanisms of young people during the war are: repression, projection and displacement. At the same time, men use the defense mechanism of projection more often than women, and women are more prone to regression. It is determined that young people during the



war are the least oriented towards the future. Also, there are very few who would perceive the past negatively.

Conclusion. The data obtained during the research indicate the need to develop a program of psychological support for young people during the war, which would allow: to develop awareness of one's own experiences, defense mechanisms, ways of ecologically living through traumatic experience; to form a healthier attitude to time, which would include planning for the future at least for the short term and would contribute to increasing motivation for life and self-development.

Keywords: time perspective, defense mechanisms, youth, war, traumatic experience

INTRODUCTION

Researchers note that time perspective is an extremely important phenomenon that manifests unconsciously, but affects a person's perception of personal and social experience, giving it meaning (Perry et al., 2019). The perception of time perspective determines a person's ability to live here and now, but at the same time, it affects the perception of the future, dreams, directions, life plans. Moreover, it has its influence on the perception of the past, and therefore on the reinterpretation of oneself (Phan, 2020).

Time perspective is especially important in youth, because during this period a person goes through an identity crisis: actively searches for one's identity, goes through the process of realizing one's values, determines the direction of professional development, begins to build a career. It is extremely important to have a positive picture of the future, which acts as a motivating force that prompts a young person to move and helps overcome doubts and obstacles that arise on the way (Brannen & Nilsen, 2002). If young persons appear to be in the conditions of hostilities, as millions of students in Ukraine found themselves in 2022, then their ability to perceive time undergoes significant transformations, which can negatively affect both their well-being in real time and the future.

Researchers point that people who find themselves in war conditions have such characteristics of time perception as "freezing" and hoping for great changes in the future. Moreover, the persons who find themselves in such conditions partially lose their agency, because the ability to plan and build the future mainly depends on external events (armistice, end of war, reconstruction, etc.) (Brun, 2015). Another important feature is the perception of the future as a return to the past, which is impossible in reality. Such a perception of time over a long period is the most destructive thing for a young person, because the "freezing" a moment in time does not give a person the opportunity to actively enter adult life and destroys the image of the future, which will be quite difficult to restore even after the cease-fire. The lack of an image of the future negatively affects the development of self-awareness and motivation for life in young people.

In this light, it is of particular interest to investigate into the peculiarities of the perception of time during the war by young people who tend to use

various defense mechanisms. Defense mechanisms operate in the same way at an unconscious level, but in addition they allow a person to maintain self-esteem and reduce the level of anxiety (Benítez Camacho et al., 2010). Our hypothesis is that a more positive image of the future is associated with the use of mature defense mechanisms of the intellectual spectrum. The proof of this hypothesis opens up opportunities for the formation of psychological support programs for young people who find themselves in war conditions, which would contribute to the formation of a healthy image of the future.

Aim of the Research

The article is aimed at proving the hypothesis that there are significant correlations between the defense mechanisms and the perception of time perspective in young people under the conditions of war.

The main tasks of the research are:

- study of the features of the time perspective of young people in the war condition;
- determination of the dominant defense mechanisms of young people;
- analysis of gender-specific differences in the level of manifestation of research indicators;
- correlational analysis of research results, with the aim of determining the relationship between specific defense mechanisms and a positive perception of the future.

METHODS

The study was held in June 2022 with the involvement of students who were relocated to the west of Ukraine from the eastern regions due to active hostilities. The criteria for inclusion in the study group are: age (18-22 years old); staying in evacuation for at least three months (time is needed for adaptation in a new place); no violence-related injuries or direct involvement in hostilities. The study participants are young people who were evacuated in the first days of the war and were not physically involved in hostilities, do not have physical injuries or a history of violence experience. On the other hand, these are people who have lost the opportunity to live at home, study at their universities, and are forced to arrange their lives from the very beginning. 50 students took part in the study: 25 men (average age 19.43 ± 1.17 years) and 25 women (average age 19.77 ± 1.13 years). All interactions with research participants took place individually with the involvement of a psychologist.

The following research methods were used: questionnaire – to collect sociodemographic data about the participants (gender, age, place of study; time and conditions of evacuation); psychological testing – to determine the features of the perception of time perspective and dominant defense

mechanisms; statistic analysis for generalization and verification of the reliability of research outcomes.

During the survey, the following parameters are clarified: age, gender, place and year of study, specialty, time and conditions of evacuation from the war-affected area. Survey data are used to check the compliance of young people with the criteria for inclusion in the research group. 158 students evacuated to the west of Ukraine completed the initial questionnaire online, and 50 of them were selected to participate in the study. 108 students were excluded from the research because they did not meet the research criteria: 41 students were older than 22 years (criterion 1), 48 students stayed in evacuation less than 3 month (criterion 2), 19 students were exposed to acts of violence (shelling, bombing, sexual violence)(criterion 3).

Psychological methods included the Lifestyle Index Questionnaire (Belskaya, 2019); Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999).

The Life Style Index methodology was developed by Robert Plutchik and Herman Kellerman adapted to the Ukrainian sample by Nataliia Belskaya. The method is based on psychoanalytic ideas about defense mechanisms and allows determining the severity of defense mechanisms. The methodology consists of 92 statements, the degree of agreement with which should be assessed using a dichotomous scale ("Yes" or "No"). The maximum number of points on different scales varies from 10 to 17: denial (max=10)(Cronbach's alpha=0,79), repression (max=17)(Cronbach's alpha=0,82), regression (max=10)(Cronbach's alpha=0,76), compensation (max=11)(Cronbach's alpha=0,78), projection (max=12)(Cronbach's alpha=0,81), displacement (max=10)(Cronbach's alpha=0,82), intellectualization (max=10)(Cronbach's alpha=0,76), reactive formation (max=12)(Cronbach's alpha=0,79). The advantages of this methods are: an exhaustive set of defense strategies, covering both more primitive primary and more mature secondary ones; a relatively small number of statements; availability of a version adapted to the Ukrainian sample group.

The Zimbardo Time Perspective Inventory was adapted on the Ukrainian sample (Senyk, 2012). The questionnaire contains 56 statements, the degree of agreement with which should be assessed on a 5-point Likert scale. The methodology relies on 5 main indicators in relation to the time perspective: future, hedonistic present, fatalistic present, positive-past, negative-past. The maximum possible score for all scales is 5 points. The advantages of the method are: ease of use; a small number of statements; availability of a version adapted to the Ukrainian sample.

Statistical methods applied for generalization and scientific verification of research results. They include:

- descriptive statistics (average, standard deviation);
- non-parametric comparison criterion – Mann-Whitney U-test for determining gender differences according to research indicators;
- non-parametric criterion – Spearman's rank correlation coefficient for determining dependencies between research indicators.

RESEARCH RESULTS

After forming the research sample, taking into account the defined criteria, testing was conducted using psychodiagnostic methods. The data were analyzed in subgroups of men and women to determine the gender characteristics of defense mechanisms and the time perspective of young people in the conditions of military operations. First of all, the defense mechanisms of the respondents were analyzed (Table 1).

Table 1
Defense Mechanisms Study Results (n=50)

Indicator	Mean ($M \pm SD$)		Mann-Whitney U-test
	Men	Women	
Denial	7.2±1.9	7.9±1.9	281
Repression	15.9±2.2	16.3±2.3	293
Regression	3.2±0.5	7.1±1.4	180**
Compensation	8.4±0.9	8.1±1.1	307
Projection	10.8±1.8	7.9±1.1	211*
Displacement	8.6±1.2	8.4±1.3	294
Intellectualization	6.1±0.9	5.8±0.7	299
Reactive formation	4.5±0.8	4.9±0.8	351

Note. Significance level: **- $p \leq 0.01$, *- $p \leq 0.05$

Source. Own research.

According to psychoanalytic classification, defense mechanisms can be divided into primary and secondary (McWilliams, 2011). Primary defense mechanisms act in a general, undifferentiated manner at the boundary between a person and the outside world. These defense mechanisms are more often used by children and are formed in the pre-verbal period. Secondary defense mechanisms act differently, focus on the interaction between the substructures of the psyche and are formed after a person has mastered language. A healthy adult mainly relies on secondary defense mechanisms. Among the list of defense mechanisms presented in the Life Style Index, the primitive ones include denial and projection, and the secondary ones include repression, regression, compensation, displacement, intellectualization, and reactive formation.

The study shows that the most common defense mechanisms of young people during the war are: repression (suppression of unpleasant and traumatic experiences), projection (projection of one's own unacceptable traits and experiences onto others) and displacement (displacement of negative effects from inaccessible objects of aggression to more accessible ones). At the same time, men use the defense mechanism of projection more often than women, and women are more prone to regression.

The use of the time perspective research method made it possible to determine characteristic features in relation to time in young people during the war (Table 2).

Table 2
Time Perspective Study Results

Indicator	Mean ($M \pm SD$)		Mann-Whitney U-test
	Men	Women	
Past-negative	1.41±0.33	1.13±0.25	267
Present-hedonistic	3.98±0.56	4.02±0.75	356
Future	1.13±0.22	1.08±0.18	313
Present-fatalistic	4.14±0.76	3.76±0.54	215*
Past-positive	4.78±0.21	4.61±0.16	308

Note. Significance level: **- $p \leq 0.01$, *- $p \leq 0.05$

Source. Own research.

In particular, it is determined that young people during the war are the least oriented towards the future. The uncertainty and turbulence of military life does not allow for long-term planning, so the respondents showed an extremely low orientation to the future. Also, there are very few who would perceive the past negatively. On the contrary, the past life is idealized and perceived as having been filled with positive experiences. In relation to the present, high scores are observed for both hedonistic and fatalistic perception of reality. At the same time, men were found to have significantly higher scores in the perception of the fatalistic present as compared to women.

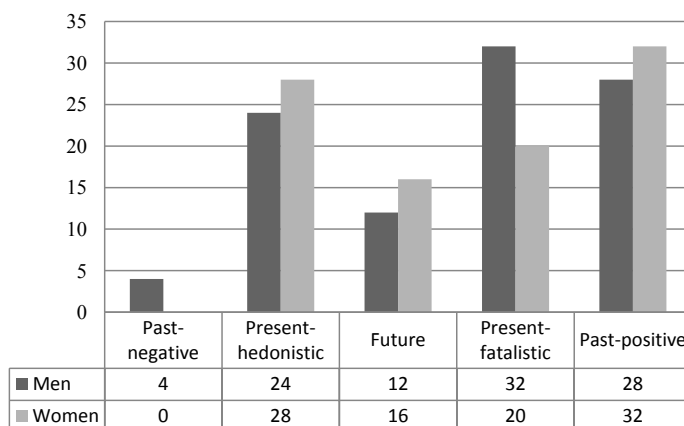


Figure 1

Distribution of the most common attitudes to time in groups of young men and women (%) (Men, $n=25$; Women, $n=25$)

Source. Own research.

The percentage distribution of the results of the method clearly demonstrates that the hedonistic perception of the present prevails among women, while the fatalistic one prevails among men.

Based on the results of the correlation analysis using the Spearman's test, a correlation matrix was created (Table 3).

Table 3
Correlation analysis results

	Past-negative	Present-hedonistic	Future	Present-fatalistic	Past-positive
Denial	-0.321	0.612**	0.405	0.110	0.314
Repression	0.127	0.543**	0.495*	0.724**	0.267
Regression	0.081	0.497*	-0.071	0.187	0.211
Compensation	0.317	0.196	0.228	0.341	0.276
Projection	0.167	-0.091	0.056	0.239	0.185
Displacement	0.295	0.512**	0.492*	-0.107	0.345
Intellectualization	-0.341	0.409	0.537**	-0.207	0.265
Reactive formation	0.054	0.608**	0.329	0.457	0.301

Note. Significance level: **- $p \leq 0.01$, *- $p \leq 0.05$

Source. Own research.

It is found that the hedonistic attitude to the present is positively and significantly correlated with the primary defense mechanism of denial, as well as with secondary repression, regression, displacement, and reactive formation. Thus, young people who focus too much on the pleasures during the war are likely trying to protect themselves from the frightening and unpredictable reality. The set of defense mechanisms that can be observed in them indicates a desire to isolate themselves from adults and fully perceive reality, which, on the one hand, helps to reduce anxiety, but on the other hand, does not allow solving the accumulated issues and can lead to excessive exhaustion in the near future.

Future orientation is significantly correlated with repression, displacement, and intellectualization. Those young people who suppress negative experiences, perceive reality in isolation from emotional experiences, and shift their destructive impulses to accessible objects manage to build plans for the future. Such a complex of defense mechanisms certainly contributes to the preservation of mental balance here and now and allows building the trajectory of future development, but at the same time, excessive use of displacement can cause great damage to relationships with close people, who will most often become destructive impulse targets.

A fatalistic perception of the future is positively correlated with repression. Most likely, such a correlation is pre-determined by the excessive

pressure of wartime circumstances on a young person, which leads to the use of repression to reduce anxiety and maintain self-esteem.

CONCLUSIONS AND DISCUSSIONS

In the course of the study, it is reported that repression, projection and displacement prevail in young people during the war. Even in the works of Sigmund Freud et al. (2022), the experience of repression of war victims is described. It is repression that ensures the erasure of information about traumatic events from memory and allows a person to feel relief. At the same time, repression can cause serious health and well-being disorders in the future. In the conditions of a long military conflict and recurring traumatic events, the ability of the psyche to displace negative information into the subconscious can be seriously damaged, which will lead to a significant deterioration of a person's well-being and a dramatic increase in the level of anxiety.

Projection is also the defense behavior that is often observed in people during war (Moses, 2002). The inability to live one's life, constant danger, the need to adapt to unusual and often unpleasant living conditions leads to an increase in the level of self-dissatisfaction. Since the general life situation during the war does not contribute to deep reflections and consistent work on oneself, it is the projection that allows a person to preserve self-respect and redirect negative experiences to others. The negative side of the projection is that it can lead to conflicts of a young person both with loved ones and with strangers, contribute to an increase in the level of suspicion, tension, mistrust of everything. In situations where social support is a necessary condition for survival, excessive use of projection can seriously harm a young person.

Intellectualization turned out to be the third common defense mechanism. In the scientific literature, there are references to the tendency to use another intellectual defense - rationalization (Knoll et al., 2020). The defense mechanisms of the intellectual group allow a person to isolate himself from the destructive power of wartime emotions and focus on those components of life that are controllable and can be significantly improved.

The time perspective perception study confirmed the data available in scientific research about the "freezing" of people in time during the war with excessive idealization of the past (Brun, 2015). It turned out to be interesting that women are more prone to a hedonistic perception of the present, they are more likely to use regression as a defense mechanism and try to enjoy life here and now without focusing on plans for the future. Men, on the other hand, perceive reality more fatalistically, but are also not ready to plan their future. This perception of reality by men may be explained by greater pressure of public opinion on men, regarding their military duties (MacKenzie & Foster, 2017), as well as the higher risk of death of men than women during military operations.

The data obtained during the research indicate the need to develop a program of psychological support for young people during the war, which would allow: to develop awareness of one's own experiences, defense mechanisms, ways of ecologically living through traumatic experience; to form a healthier attitude to time, which would include planning for the future at least for the short term and would contribute to increasing motivation for life and self-development. Such psychological interventions are of extreme importance in order not to lose a generation of young people facing the horrors of war after two years of the pandemic lock-down. The data of the research held vividly describe the main issues in the perception of time by young people during the war and give an answer to the question of the most priority areas of psychological work with young people in Ukraine.

REFERENCES

- [1] Belskaya, N. (2019). Research of diagnostic-psychometric opportunities of the R. Plutchik – H. Kellerman test “Life Style Index” (LSI) and its standardization on an example of Ukrainian high school students. *Education and Development of Gifted Personality*, 1(72), 20-29.
- [2] Benítez Camacho, E., Chávez-León, E., Ontiveros Uribe, M. P., Yunes Jiménez, A., & Náfate López, O. (2010). The levels of psychological functioning of personality and the mechanisms of defense. *Salud mental*, 33(6), 517-526.
- [3] Brannen, J., & Nilsen, A. (2002). Young people's time perspectives: From youth to adulthood. *Sociology*, 36(3), 513-537. <https://doi.org/10.1177/0038038502036003002>
- [4] Brun, C. (2015). Active waiting and changing hopes: Toward a time perspective on protracted displacement. *Social Analysis*, 59(1), 19-37.
- [5] Freud, S., Jones, E., Abraham, K., Ferenczi, S., & Simmel, E. (2022). *Psycho-analysis and the war neuroses*. DigiCat.
- [6] Knoll, M., Starrs, C. J., Perry, J. C. (2020). Rationalization (Defense Mechanism). In V. Zeigler-Hill, & T. K. Shackelford, (Eds.), *Encyclopedia of Personality and Individual Differences*. Springer, Cham. https://doi.org/10.1007/978-3-319-24612-3_1419
- [7] MacKenzie, M., & Foster, A. (2017). Masculinity nostalgia: How war and occupation inspire a yearning for gender order. *Security Dialogue*, 48(3), 206-223.
- [8] McWilliams, N. (2011). *Psychoanalytic diagnosis: Understanding personality structure in the clinical process*. Guilford Press.
- [9] Moses, R. (2002). Unconscious Defense Mechanisms and Social Mechanisms Used in National and Political Conflicts. In J. Bunzl, & B. Beit-Hallahmi, (Eds.), *Psychoanalysis, Identity, and Ideology*. Springer, Boston, MA. https://doi.org/10.1007/978-1-4757-6324-9_5
- [10] Perry, J. L., Temple, E. C., Worrell, F. C., Zivkovic, U., Mello, Z. R., Musil, B., Cole, J. C. & McKay, M. T. (2020). Different version, similar result? A critical analysis of the multiplicity of shortened versions of the Zimbardo time perspective inventory. *Sage Open*, 10(2), 1-15. <https://doi.org/10.1177/2158244020923351>.
- [11] Phan, H. P., Ngu, B. H., & McQueen, K. (2020). Future time perspective and the achievement of optimal best: Reflections, conceptualizations, and future directions for development. *Frontiers in Psychology*, 11, 1037.
- [12] Senyk, O. (2012). Adaptation of the Zimbardo Time Perspective Inventory (ZPTI) Questionnaire. *Social psychology*, 85, 153-168.
- [13] Zimbardo, P. G., Boyd, J. N. (1999) Putting Time in Perspective: A Valid, Reliable Individual-differences Metric. *Journal of Personality and Social Psychology*, 77(6), 1271-1288.