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**РОЛЬ СТИЛІВ ГУМОРУ У ПСИХОЛОГІЧНОМУ БЛАГОПОЛУЧЧЮ
ОСОБИСТОСТІ В УМОВАХ ВІЙНИ
THE ROLE OF HUMOR STYLES IN THE PSYCHOLOGICAL WELL-BEING OF THE
INDIVIDUAL UNDER WARTIME CONDITIONS**

Виконав: студент 4 курсу,
групи ЗПС-19Б спеціальності 053

Психологія

Кубік К

Керівник: доцент кафедри
психології і терапії,
кандидат психологічних наук

Пилат Н. І.

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Abstract:

The role of humor styles in the psychological well-being of the individual under wartime conditions.

The purpose of this study is to examine the relationship between humor, resilience, and coping with stress in different country contexts, this research will compare data from individuals from a country that is at war and being invaded with data from individuals living in a country in peacetime. This research has the potential to shed light on the ways in which external factors such as country context can impact the relationship between humor, resilience, and coping with stress, and may provide insights into the role of humor in mental health and well-being in different cultural contexts.

An online survey was given to 189 participants, 83 of whom were Americans and 106 of whom were Ukrainians, to determine their styles of humor, levels of resilience, and coping strategies. The findings showed that there were a variety of correlations between humor and coping mechanisms and resilience. Self-enhancing humor showed the strongest association with resilience and a variety of coping mechanisms. Furthermore, comparative analysis revealed that Ukrainians tended to display more aggressive humor than Americans.

Keywords: humor styles, resilience, coping strategies, optimism, affiliative humor, aggressive humor, self-defeating humor, self-enhancing humor, satisfaction with life.

Роль стилів гумору у психологічному благополуччю особистості в умовах війни.

Метою дослідження є вивчення зв'язку між гумором, стійкістю та подоланням стресу в різних контекстах. У цьому дослідженні порівняно дані осіб із країни, яка перебуває у стані війни та зазнала вторгнення, з даними осіб, які проживають у країні в мирний час. Потенціал дослідження полягає у висвітленні шляхів, якими зовнішні фактори, такі як контекст країни, можуть впливати на зв'язок між гумором, стійкістю та подоланням стресу, і може дати розуміння ролі гумору в психічному здоров'ї та добробуті в різних культурні контексти.

У онлайн-опитуванні взяли участь 189 учасників, 83 з яких були американцями та 106 українцями, щоб визначити їхній стиль гумору, резильєнтності та стратегії копінгу. Отримані дані показали, що між гумором і стратегіями копінгу та резильєнтністю існують різні кореляції. Особливо гумор спрямований на самовдосконалення корелював

найсильніше зі резильєнтністю та різними стратегіями копіngu. Крім того, порівняльний аналіз показав, що українці, як правило, демонструють більш агресивний гумор, ніж американці.

Ключові слова: стилі гумору, резильєнтність, копінг-стратегії, оптимізм, афілійований гумор, агресивний гумор, гумор спрямований на самозниження, гумор спрямований на самовдосконалення, задоволеність життям.

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Introduction

Humor is frequently used as a stress-reduction technique, and studies have found that those with a sense of humor are more likely to be resilient. However, external conditions, such as living in a nation that is at war or under invasion, may have an impact on the relationship between humor, resilience, and coping mechanisms.

In this study, two groups of people from countries with radically different environments—a country at war and under invasion, and a country in peace—are compared in terms of humor styles, resilience, and coping strategies. With the premise that the relationship between humor, resilience, and stress coping may vary depending on whether an individual is living in a war-torn nation or one in peace-time, the country context serves as the moderating variable in this study.

The use of humor as a coping mechanism has been well-documented in the literature. Humor has been shown to have several positive effects on mental health, including reducing anxiety and depression, increasing feelings of happiness and well-being, and improving overall quality of life (Martin, 2007). In addition, humor has been found to be related to higher levels of resilience, or the ability to bounce back from stress and adversity (Kuiper, 2012). However, the relationship between humor and resilience is complex and may be influenced by a number of factors, including cultural differences and individual characteristics.

One factor that may impact the relationship between humor and resilience is the external context in which individuals live. For example, living in a country that is at war or being invaded can be a highly stressful experience, with ongoing threats to personal safety and well-being. In such contexts, the use of humor as a coping mechanism may be more challenging, as individuals may be preoccupied with concerns about their safety and the safety of their loved ones. On the other hand, living in a peaceful country may provide a more supportive environment for the use of humor as a coping mechanism, as individuals are less likely to be faced with the same level of stress and danger.

To examine the relationship between humor, resilience, and coping with stress in different country contexts, this research will compare data from individuals from a country that is at war and being invaded with data from individuals living in a country in peacetime. This research has the potential to shed light on the ways in which external factors such as country context can impact the relationship between humor, resilience, and coping with stress, and may provide insights into the role of humor in mental health and well-being in different cultural contexts.

The aim of the project is to analyze the role of humor styles in the psychological well-being of the individual under wartime conditions.

Research object: the role of humor styles in the psychological well-being

Research objectives:

- The first objective (O1) is to analyze the theoretical background of humor styles, resilience theory, and coping strategies.
- The second objective (O2) is to test the relationships between humor styles and psychological resources and strengths such as resilience, and life satisfaction.
- The third objective (O3) is to test the relationships between self-enhancing humor style and coping strategies.
- The fourth objective (O4) is to analyze the differences in humor styles between Ukrainians and Americans.

Hypotheses:

- The affiliative humor style is associated with psychological resources and strengths such as resilience, and life satisfaction.
- The aggressive humor style is associated with negative outcomes, such as lower resilience, and life satisfaction.
- The self-defeating humor style is associated with negative outcomes, such as lower resilience, and life satisfaction.
- The self-enhancing humor style involves using humor as a coping mechanism.
- There are differences in humor styles between people from socio-cultural satiation (the way that Ukrainians and Americans use different humor styles.

Research design: The method of data collecting is a survey which is based on several measurements: Satisfaction with life scale; Resilient systems scale; Humor styles questionnaire; Ways of coping questionnaire. Data analysis methods include Spearman rank correlation analysis, T-test, Mann-Whitney U test.

Sample: 189 subjects completed the survey for this research. 83 Americans and 106 Ukrainians.

The theoretical significance of the work is to have a better understanding of the role of humor in one's well-being. Humor as a psychological phenomenon is complex and has different manifestations that can affect one's well-being. This study will provide a deeper look into the

relationship that humor and its different manifestations is related to different factors that together contribute to well-being. Also, the further investigation of the environment as a moderating factor will provide more insight into the role that war can affect humor styles and the relationship that those humor styles have to well-being. On the practical side, this research will provide specialists with more knowledge about the role that humor plays in each person's life. Specialists will be able to use this knowledge to promote and encourage certain humor styles to better one's well-being.

CHAPTER 1. THEORETICAL BACKGROUND

1.1. Humor as a psychological phenomenon: theoretical background

Humor is a complex psychological phenomenon that has long been recognized as a significant aspect of human psychology. For several years, academics and psychologists have been studying the role of humor in human behavior, emotions, and psychological state. In this section, we are going to review the various theories and perspectives on humor, additionally because the empirical evidence supports the advantages of humor for people.

Maslow (1943) argued that humor may be a means for people to satisfy their need for self-actualization and transcendence. His hierarchy of needs posits that individuals seek to meet basic physiological and safety needs before seeking to satisfy higher-level needs like love, belonging, and self-esteem. By finding meaning and purpose in life through humor, individuals can satisfy their need for self-actualization and transcendence. This attitude suggests that humor will be a robust tool for private growth and development.

Ellis (1962) believed that humor will be used as a coping mechanism to assist individuals manage stress and adversity. Individuals who can find humor in difficult situations are more likely to have a positive outlook and be more resilient in the face of challenges, in step with Ellis. This theory emphasizes the importance of humor as a way of handling stress and adversity and suggests that humor may be a crucial consideration for mental well-being.

Seligman and Diener (2002) expanded on this idea and argued that humor may be a key component of well-being and may contribute to greater happiness and satisfaction in life. By finding meaning and purpose in life through humor and using it to make positive relationships and social connections, individuals can enhance their overall well-being. This attitude suggests that humor is often a vital consideration of overall well-being, which can contribute to greater happiness and satisfaction in life.

The foremost widely accepted definition to date is from Martin (2007), who described humor as a multidimensional construct that combines behavioral habits (comic commentary), ability (understanding jokes), and a coping strategy (in stressful situations). This definition highlights the complexity of humor and suggests that it's a multifaceted phenomenon that may be understood from different perspectives.

Dyck and Holtzman (2013) discovered that the utilization of humor determined depressive symptoms, reckoning on the perception of support from one's social circle. This research suggests that the link between humor and mental state is complex, which it's going to be influenced by multiple factors, including social support.

Multiple links between distorted thinking, the use of humor, and depressive symptoms were identified by Rnic, Dozois, and Martin (2016). They found significant correlations between the appearance of depressive symptoms and aggressive, self-defeating and self-enhancing uses of humor, the primary two correlations were positive, the latter was negative. This research highlights the importance of understanding the various ways during which humor may be used, and therefore the potential implications of those different uses for mental state.

1.2. Humor Styles

Martin (2001) developed a theory of humor styles that identified four alternative ways within which individuals tend to use humor: affiliative, self-enhancing, aggressive, and self-defeating. In line with Martin, individuals tend to use one of these humor styles more frequently than others, and these styles can have different impacts on a personality's well-being and social interactions.

The affiliative humor style involves using humor to create and maintain social connections. Individuals who use affiliative humor tend to use humor to bring people together and to boost social relationships. Research has shown that the affiliative humor style is related to positive outcomes, like greater social support and well-being (Martin et al., 2003). This is often associated with telling jokes or funny stories, to well-intentioned practical jokes, and a desire to relate to others, entertain, and boost relationships. By using this sort of humor, we illuminate that things are on a fun level, and our intention is to interact on a level with others. It's related to extraversion, interpersonal attraction, self-esteem, satisfaction with relations, and, in general, positive feelings and emotions.

The self-enhancing humor style involves using humor as a coping mechanism to manage stress and adversity. Individuals who use self-enhancing humor tend to use humor as a way to seek out meaning and purpose in difficult situations, and research has shown that this humor style is related to greater resilience and well-being (Martin et al., 2003). This refers to a humorous view of the world, found in those that tend to taunt life's idiosyncrasies and maintain a humorous

perspective on things. It might be the fashion closest to humor as a type of coping, since it allows us to distance ourselves from stimuli that are stressful or generate problems (Lefcourt et al., 1995). In general, it enables us to scale back negative emotions and maintain a positive and realistic view in adverse situations. It's negatively associated with negative emotions like anxiety, depression and neuroticism.

The aggressive humor style involves using humor to place others down or to belittle them. Individuals who use aggressive humor tend to use it as some way to claim dominance or to control others. Research has shown that the aggressive humor style is related to negative outcomes, like lower social support and well-being (Martin et al., 2003). This is often associated with sarcasm, ridicule, irony, and therefore the use of humor as a kind of manipulation, with tacit threats within the guise of ridicule (Janes & Olson cited in Martin et al., 2003). During this style of humor there's little control over the possible impact on others, so it's related to aggression, hostility and neuroticism.

The self-defeating humor style involves using humor to make fun of oneself in a very way that's self-deprecating or self-effacing. Individuals who use self-defeating humor tend to use it to address stress or adversity, but research has shown that this humor style is really related to negative outcomes, like lower self-esteem and well-being (Martin et al., 2003). This refers to allowing oneself to be the “butt of the joke,” to get attention from others. For Martin et al. (2003), it's hypothetically associated with defensive denial, whereby one hides one's negative feelings and avoids facing up to aspects of oneself that are rejected; it's related to emotional need and dependence, avoidance, and low self-esteem.

Research conducted by Mendiburo-Seguel, Páez, and Martínez-Sánchez (2015) found that the extraversion factor had correlational statistics with affiliative humor and a weaker correlation with self-enhancing humor. However, it was not associated with aggressive humor or self-defeating humor. In terms of agreeableness, both aggressive humor and self-defeating humor were found to possess an indirect correlation with it (with the latter having a weaker correlation). This was also the case for conscientiousness. Neither factor was associated with the 2 positive humor styles (affiliative and self-enhancing). Aggressive and self-defeating humor had a correlation with neuroticism, which successively had a correlation with self-enhancing humor. These three styles explained 25% of the variance of neuroticism. Openness to experience correlated with self-enhancing humor and affiliative humor, however, it didn't have any correlation with the 2 negative

humor styles. Additionally, a positive association was found between positive masculinity and self-enhancing humor, which was mainly because of characteristics associated with independence, self-sufficiency, and self-confidence.

Despite the universality of the four humor styles, people from different cultures may react differently to every. For instance, Chinese culture places stress on harmony and peace, so Chinese students tend to use aggressive humor less often as a coping strategy compared to Canadian students (Chen and Martin, 2007). Hong Kong, which has experienced weaker collectivist influences than PRC, was found to have students who tend towards aggressive and self-defeating humor, and far away from affiliative and self-enhancing humor (Yue et al., 2014). A study of cross-country samples found that individuals from horizontal collectivist cultures are more likely to use affiliative humor to foster interdependence, individuals from vertical collectivist cultures are more likely to use self-defeating humor for the sake of the group, and individuals from vertical individualist cultures are more likely to use aggressive humor to reinforce their hierarchical status (Kazarian and Martin, 2004). In summary, people from Western cultures tend to use self-defeating and aggressive humor, whereas people from Eastern cultures tend to embrace self-enhancing and affiliative humor (e.g., Abe, 1994; Nevo et al., 2001; Chen and Martin, 2007; Liao and Chang, 2006; Yue, 2011).

1.3. Resilience theory

Resiliency is the ability to pick up from adversity and effectively deal with stress and challenges. It's a key psychological trait that has been studied by a variety of psychologists, who have identified several factors that contribute to resilience. As an example, Albert Bandura's (1998) theory of self-efficacy suggests that individuals with a belief within their own ability to address challenges are more resilient in the face of adversity. Carol Dweck's (2008) theory of growth mindset posits that individuals who believe that their abilities are often developed through effort and learning are more resilient within the face of adversity. Ann Masten's (2013) research on resilience in children has identified a variety of things that contribute to resilience, including supportive relationships, effective problem-solving skills, and a way of purpose and meaning in life.

One personal characteristic that correlates to resilience is personality. A study by Friborg et al (2005) showed that emotional stability, the most clinically meaningful factor, was strongest

associated with the resilience factor 'personal strength' and its primary factor 'perception of self'. An identical study also showed that the factor 'personal strength, perception of the future' strongly correlated with emotional stability and conscientiousness. A meta-analysis done by Oshio et al (2018) exploring the relationship between the Big5 and trait resilience showed that there was a positive relationship between trait resilience and conscientiousness, extraversion, agreeableness, and openness, while there was a negative correlation with neuroticism.

Another personal characteristic that correlates with resilience is locus of control, or the extent to which a person believes they have control over their own life. In one longitudinal study by Anderson (1977), managers with an internal locus of control were found to perceive less stress, employ more task-centered coping behaviors, and use fewer emotion-centered coping behaviors than managers with an external locus of control. Successful internals became more internal, whereas unsuccessful externals became more external over the 2½-yr interval. Changes in performance were associated with changes in locus of control. Another study by Petrosky and Birkimer (1991) found that direct coping was strongly predicted by a mixture of increased age, perceptions of the controllability of situations, and an interior locus of control. An internal locus of control can allow a person to perceive their situation as something that they'll react to and it isn't a forced choice while someone with a more external locus of control sees matters as unchangeable and that we aren't up to the mark of how we react to matters.

Optimism, or the tendency to own positive expectations about the longer term, is another personal characteristic that correlates to resilience. In one study of medical students, resilience was shown to predict psychological well-being, and optimism played a minor mediation role within the relationship between resilience and psychological well-being (Souri & Hasanirad, 2011).

Finally, emotional intelligence, or the power to acknowledge and manage one's own emotions and also the emotions of others, might also contribute to resilience. One study (Schneider et al., 2013) showed that folks with higher emotional intelligence would handle stress in a positive way, specializing in the task at hand instead of feeling threatened. Their results demonstrated that people with higher emotional intelligence have a more positive view when faced with stress, do not lose the greatest amount of positive emotions, feel less negative emotions, and are better equipped to handle stress in a very difficult way. Per another study (Armstrong et al., 2011), emotional intelligence may perhaps be directly connected to resilience, such emotionally intelligent behavior in stressful circumstances is adaptive. Additional evidence suggests that high-

resilient people proactively cultivate their positive emotionality by strategically eliciting positive emotions through the employment of humor (Werner & Smith, 1992) and optimistic thinking (Kumpfer, 1999).

Additionally, coping skills can be quite important in the growth of a person's resilience (Fullerton et al., 2021). In their study the link between 5 different kinds of coping and resilience was explored. They showed that everyone five coping factors demonstrated moderate relationships with adjustment and well-being. Only the avoidant, maladaptive, and optimistic thinking categories have connections to somatic health complaints. Relationships between personality traits and the coping mechanisms and outcome variables are generally moderate. First, optimistic thinking, problem-focused coping, and support-seeking were positively related with resilience resources, while avoidant coping was negatively associated. They also showed that intellect/openness predicted greater use of both avoidant and maladaptive coping. Coping strategies are a crucial factor and therefore the variety of coping strategies that we use can either increase or decrease our ability to adapt and react to adversity.

One way within which social support may contribute to resilience is by providing emotional comfort and reassurance during times of stress. In one study (Sippel et al. 2015), researchers argued that resilience within the individual can be dependent on a social system that provides positive support, which these systems enhance resilience through a spread of psychosocial and neurobiological mechanisms.

The mechanisms that predict positive growth are sensitive to individual, contextual, and cultural variation (differential impact), and the impact that any single factor has on resilience varies by the level of risk exposure. Resilience can therefore appear the same within populations as well as between them. In this situation, nurture triumphs over nature, and populations might differ and appear alike in terms of resilience. (Ungar, 2013).

1.4. Coping Strategies

Psychological research on coping strategies has been a serious focus of study for several decades. The first research aimed to spot various sorts of coping strategies and the way they were linked to psychological state outcomes. As an example, Richard Lazarus and Susan Folkman developed the transactional model of stress and coping (1987), which suggests individuals use both problem-focused and emotion-focused coping strategies in response to stressors.

It's possible that coping strategies could also be influenced by other factors, like personality, past experiences, and culture. Furthermore, some coping strategies could also be simpler for some stressors or individuals.

In recent years, researchers have developed coping measures specifically designed for specific populations or stressors. For instance, Carolyn Aldwin (2007) has created measures to assess coping strategies in older adults. According to one study (Dolbier et al., 2010), people who received a resilience-enhancing intervention had significantly higher resilience scores, more practical coping mechanisms (such as higher problem-solving and lower avoidance behavior), higher scores on protective factors (such as positive affect, self-esteem, and self-leadership), and lower scores on symptomatology (such as depressive symptoms, negative affect, and perceived stress). Another study by Gloria and Steinhardt (2014) supports the broaden-and-build theory, which suggests that positive emotions may enhance resilience directly and indirectly through the mediating role of coping strategies, particularly through adaptive coping. This study discovered that resilience attenuated the relationship between stress and depressive symptoms and trait anxiety.

However, individuals with high levels of neuroticism are typically poor copers and choose ineffective coping strategies that will exacerbate stressful situations, as found by O'Brien & DeLongis (1996). These individuals have high levels of negative emotions that impede their ability to decide on appropriate coping strategies. As an example, when stress involves someone close, they have the inclination to use more confrontive coping, but when stress involves someone distant, they tend to extend their use of empathic responding.

On the other hand, individuals with high levels of extraversion are typically effective and active copers, as found by Lee-Baggley et al. (2004) and Newth & DeLongis (2004). These individuals are more likely to use a spread of coping strategies, including cognitive reframing and active problem solving. However, they'll even be interpersonally dominant and less likely to retort empathically to their spouse during marital conflict, instead choosing confrontation, interpersonal withdrawal, and self-blame.

1.5 Humor styles in different country contexts

In a study (Schermer et al., 2019) that examined the variability in responses to the four humor styles across 28 countries, results showed that each country tended to have higher affiliative humor

style scores. This is consistent with previous studies that found that benevolent (positive) humor was consistently higher than corrective (negative) humor across samples from different countries (Heintz et al., 2018). The study also examined the possible correlates with age and sex, and the results showed that humor style scores were positively correlated with age, with more generational similarities than differences across the nation samples. Specifically, the study found that Ukrainians had a lower scores in regards to aggressive and self-effacing humor styles

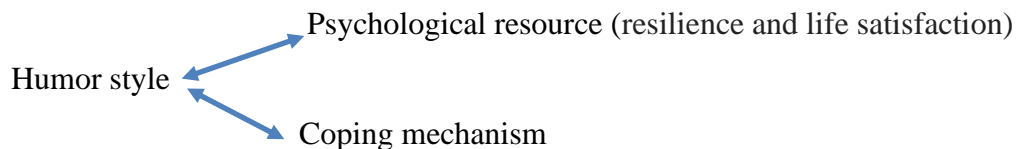
The study's findings are consistent with previous research that shows that humor is a universal phenomenon that transcends cultures (Martin et al., 2003). The study's findings also suggest that humor style is an important aspect of humor and that each culture has its unique way of expressing humor. This finding is consistent with previous research that shows that humor style is related to cultural values and norms (Heintz et al., 2018). However, the study's findings also suggest that cultural factors may impact the internal consistency of the humor styles questionnaire in some countries.

In one study (Henman, 2001), researchers explored the sense of humor and personality of prisoners of war during the Vietnam war. In dealing with the hardship of their ordeal, the returned Vietnamese POWs have demonstrated incredible resiliency. It seems that the usage of humor significantly contributed to the improvement of their mental health. It was believed that using humor as a coping strategy helped the convicts push back and gain control of their circumstances. The relationship between humor and resilience is more obvious when we think of humor as a tool for communication and resilience as a phenomenon of communication.

1.6 Theoretical model

Humor styles are associated with different coping strategies, resilience levels, and satisfaction with life. Individuals who use affiliative and self-enhancing humor styles tend to use humor as a positive coping mechanism to manage stress and adversity, which leads to overall well-being. In contrast, individuals who use aggressive and self-defeating humor styles tend to use humor as a negative coping mechanism, which can lead to negative outcomes such as lower social support, lower self-esteem, and poorer well-being.

Individuals who use affiliative and self-enhancing humor styles tend to have higher resilience levels, as they use humor as a positive coping mechanism to manage stress and adversity. In contrast, individuals who use aggressive and self-defeating humor styles tend to have lower resilience levels, as they use humor as a negative coping mechanism.



Hypotheses:

1. The affiliative humor style is associated with psychological resources and strengths such as resilience, and life satisfaction.
2. The aggressive humor style is associated with negative outcomes, such as lower resilience, and life satisfaction.
3. The self-defeating humor style is associated with negative outcomes, such as lower resilience, and life satisfaction.
4. The self-enhancing humor style involves using humor as a coping mechanism.
5. There are differences in humor styles between people from socio-cultural satiation (the way that Ukrainians and Americans use different humor styles.

1.6 Conclusion to the first chapter:

Humor styles and their relationship to different psychological factors have been studied quite extensively. Humor styles can be seen as positive or negative and the style can have an impact on an individuals well-being and their ability to react to stressful and difficult situations. Resilience and coping strategies are two psychological processes that differ among individuals. The relationship between humor, resilience and coping strategies among two different populations can take into account environmental factors that can have a moderating effect. For a population that is under very stressful conditions, might use humor in a way that helps them cope with the situation. On the other hand, negative humor styles can have a degrading effect on one's ability to be resilient in the face of hardship.

CHAPTER 2. RESEARCH DESIGN AND PROCEDURES

2.1. Stages of research

The study of the relationship between humor styles, coping strategies, and resilience consists of several stages. First, the goal, subject, and object of the research were determined. Then a theoretical study of the problem was carried out. The research was conducted online using Google forms from March 2023 to April 2023. The participants were informed about the confidentiality of the obtained results, voluntary participation, as well as the presentation of the results in a generalized form.

To involve participants in the study, 2 Google forms were created. One form for Americans is in English, and the second is for Ukrainians in Ukrainian.

In the Google form, questionnaires were presented in the following sequence: informed consent; research data; Life Satisfaction Scale (Diener et al., 1985); Resilient Systems Scale (Maltby et al., 2015), Humor Styles Questionnaire (Martin et al., 2003), Ways of Coping Questionnaire (Folkman & Lazarus, 1980). In the Ukrainian version, in the block of data on the subjects, data on the place of residence were collected before and after the full-scale invasion on February 24, 2023.

2.2. Research methods

This study had a cross-sectional and cross-cultural design, in which 4 scales were used among two different populations (American and Ukrainian).

In the first section, general data on the subjects was collected. Data was collected from Ukrainians about their gender, age, place of residence before and after the full-scale invasion, and the humorous content they consume. Data on gender and age were collected from Americans.

The questionnaire included the following measures.

Life Satisfaction is measured by the *Satisfaction with Life Scale* (SWLS) with five statements (Diener, Emmons, Larsen, & Griffin, 1985). Responses are recorded on 7-point scales ranging from 1 (strongly disagree) to 7 (strongly agree). Coefficient alpha is 0.83.

Resilience is measured by the *Resilience Systems Scale*, which was developed by Maltby and colleagues (2015) and adapted into Ukrainian by Klimanska and Haletska (2017). The questionnaire is designed to measure three systems of resilience. It consists of 12 questions from

three scales: Engineering resilience ($\alpha = .88$), environmental resilience ($\alpha = .74$), and adaptability ($\alpha = .74$).

The humor styles were measured by the *Humor Styles Questionnaire*, which was developed by Martin and colleagues (2003) and translated into Ukrainian (Pylat & Haletska). The questionnaire consists of 32 questions and four scales: affiliative humor ($\alpha = .74$), aggressive humor ($\alpha = .79$), self-enhancing humor ($\alpha = .75$), and self-deprecating humor ($\alpha = .79$).

Coping strategies were measured by the *Ways of Coping Scale*, which was developed by Folkman and Lazarus (1980) and translated into Ukrainian by Rodina 2022. The translated version consists of 42 questions and the original consists of 66 questions. The Americans were offered a version of 42 questions. The questionnaire consists of five scales: acceptance and passive calculation for help ($\alpha = .77$), acceptance and passive optimism ($\alpha = .61$), acceptance and passive pessimism ($\alpha = .72$), acceptance and active struggle ($\alpha = .61$), rejection and dissociation ($\alpha = .63$).

2.3. Characteristics of the research group

189 people (106 Ukrainians, 83 Americans) took part in the study, the average age was 30.4 years ($SD = 8.9$). Americans have 56 women and 26 men. Among the Ukrainians, 74 were women, 30 were men, and 2 respondents did not want to determine their gender.

2.4 Data Analysis

Data was collected in excel and then transferred to Statistica 8.0. The correlation analysis used was the Spearman Rank analysis as all of the relationships explored had at least one ordinal scale. The data was also examined separately for each nationality. For the comparative analysis, the T-test was used for self-improvement humor, aggressive humor, and self-destructive humor as they were all integral scales. For the rest of the variables, the Mann-Whitney U test was used.

Conclusion to the second chapter:

This research is done using a cross-sectional survey that is administered among two different populations. Subjects were reached out to through social media and they volunteered to take the survey. The survey consisted of multiple sections using the humor styles questionnaire, ways of coping questionnaire, resilient systems survey, and satisfaction with life scale. General data was gathered from each population such as sex, age, place of residence, and humoristic

content they use. The data was analyzed in Excel and Statistics 8. 0. Comparative and correlation analysis among groups were performed.

CHAPTER 3. RESULTS AND DISCUSSION

3.1 Correlation analysis of humor styles, systems of resilience and satisfaction with life

For all groups, there is no statistically significant correlation between aggressive humor and life satisfaction ($r = -0.02$, $p = 0.77$), engineering resilience ($r = 0.10$, $p = 0.15$), or ecological resilience ($r = 0.05$, $p = 0.48$). However there is a significant positive relationship ($r = 0.16$, $p = 0.02$) between aggressive humor and adaptability. This shows that those who enjoy aggressive humor might be more adaptable in a variety of settings.

Self-defeating humor, on the other hand, did not significantly correlate across groups with life satisfaction ($r = -0.06$, $p = 0.40$), engineering resilience ($r = 0.05$, $p = 0.42$), or ecological resilience ($r = -0.001$, $p = 0.98$). Self-defeating humor and adaptability, however, significantly positively correlate ($r = 0.24$, $p = 0.0005$). This suggests that those who make fun of themselves may be better able to adjust to and deal with difficult situations.

Additionally, a significant positive correlation between self-improving humor and life satisfaction ($r = 0.16$, $p = 0.02$), engineering resilience ($r = 0.29$, $p = 0.00006$), ecological resilience ($r = 0.22$, $p = 0.002$) has been found. However, there was no significant relationship between self-improving humor and ability to adapt ($r = .08$, $p = .23$). These results show that people who use self-improvement humor may have higher levels of life happiness, and more resilience to ecological and engineering difficulties.

Lastly, affiliative humor did not show a significant link with ecological resilience ($r = 0.09$, $p = 0.21$), engineering resilience ($r = 0.06$, $p = 0.42$), or overall life satisfaction ($r = 0.07$, $p = 0.31$). Additionally, affiliative humor and adaptability do not significantly correlate ($r = -0.04$, $p = 0.54$). These findings imply that affiliative humor might not significantly affect these characteristics of well-being. Significant relationships are shown in table 3.1.

Table 3.1.

Correlation with humor styles

Relationship	Spearman R	p value
Aggressive humor and Ability to adapt	.16	.02
Self-improvement humor and Satisfaction with life	.16	.02

Self-improvement and Engineering resilience	.28	.00
Self-improvement and Ecological resilience	.22	.002
Self-damaging humor and Ability to adapt	.16	.02

3.1.1. Correlation analysis of humor styles, systems of resilience, and satisfaction with life among Ukrainians

A Spearman rank correlation analysis was done on the group of Ukrainians to look at the connections between various humor types and factors of wellbeing. According to the findings, aggressive humor did not significantly correlate with engineering resilience ($r = -0.04$, $p = 0.67$), ecological resilience ($r = 0.02$, $p = 0.79$), life satisfaction ($r = 0.15$, $p = 0.13$), or adaptability ($r = -0.04$, $p = 0.67$). These results imply that aggressive humor may not have a significant impact on these dimensions of Ukrainians' well-being.

Similarly, self-defeating humor does not demonstrate significant correlations with satisfaction with life ($r = -0.07$, $p = 0.43$), engineering resilience ($r = 0.08$, $p = 0.41$), ecological resilience ($r = -0.02$, $p = 0.85$). However, there was a significant positive correlation with the ability to adapt ($r = 0.26$, $p = 0.005$). This implies that individuals who engage in self-defeating humor may possess higher levels of adaptability.

In contrast, self-improving humor exhibits significant positive correlations with both engineering resilience ($r = 0.22$, $p = 0.02$), life satisfaction ($r = 0.33$, $p = 0.0005$), ecological resilience ($r = 0.20$, $p = 0.03$). Despite being positive, the correlations between self-improving humor and adaptability ($r = 0.11$, $p = 0.25$) are over the standard cutoff of 0.05.

Furthermore, affiliative humor does not exhibit significant correlations with satisfaction with life ($r = 0.06$, $p = 0.53$), engineering resilience ($r = 0.06$, $p = 0.42$), ecological resilience ($r = -0.07$, $p = 0.40$), or the ability to adapt ($r = -0.0003$, $p = 0.96$). These results indicate that affiliative humor may not strongly impact these aspects of well-being among Ukrainians.

All of the significant relationships are shown in table 3.2.

Table 3.2

Correlation with humor styles. Ukrainians

Relationship	N	r value	p value
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Self-improvement humor and Satisfaction with life	106	.32	.00
Self-improvement and Engineering resilience	106	.22	.02
Self-improvement and Ecological resilience	106	.2	.03
Self-damaging humor and Ability to adapt	106	.26	.005

3.1.2. Correlation analysis of humor styles, systems of resilience, and satisfaction with life among Americans

A Spearman rank correlation analysis was performed to evaluate the connections between various humor types and elements of American well-being. According to the results, aggressive humor has weak relationships with life satisfaction ($r = 0.1$, $p = 0.34$), engineering resilience ($r = 0.16$, $p = 0.15$), ecological resilience ($r = 0.08$, $p = 0.45$), and adaptability ($r = 0.15$, $p = 0.15$). Despite being positive, these relationships are not statistically significant, indicating that the impact of forceful humor on these dimensions of well-being in the American population may be limited.

Similar to this, self-defeating humor exhibits non-significant negative correlations with life satisfaction ($r = -0.12$, $p = 0.26$), engineering resilience ($r = 0.02$, $p = 0.87$), and ecological resilience ($r = 0.02$, $p = 0.8$), as well as a significant positive correlation with adaptability ($r = 0.26$, $p = 0.01$). These findings suggest that people who make fun of themselves may be more adaptable, but other measures of wellbeing do not appear to be much impacted by their sense of humor.

On the other hand, self-improving humor shows a significant positive correlation with satisfaction with life ($r = 0.27$, $p = 0.01$), indicating that individuals who utilize self-improving humor may experience higher levels of life satisfaction. Additionally, there are positive correlations with engineering resilience ($r = 0.23$, $p = 0.03$) and ecological resilience ($r = 0.09$, $p = 0.4$), although the latter is not statistically significant. The correlation between self-improving humor and the ability to adapt is not significant ($r = 0.02$, $p = 0.8$).

Lastly, affiliative humor demonstrates weak or non-significant correlations with satisfaction with life ($r = 0.19$, $p = 0.08$), engineering resilience ($r = 0.05$, $p = 0.6$), and the ability to adapt ($r = .26$, $p = 0.24$). However there was a positive significant relationship with ecological resilience ($r = 0.26$, $p = 0.01$). These results suggest that affiliative humor may have limited impact

on these aspects of well-being among Americans. All significant relationships are shown in Table 3.3.

Table 3.3

Correlation with humor styles. Americans

Relationship	N	r value	p value
Self-improvement humor and Satisfaction with life	83	.27	.01
Self-improvement and Engineering resilience	83	.23	.03
Affiliative humor and Ecological resilience	83	.26	.02
Self-damaging humor and Ability to adapt	83	.26	.01

3.2. Correlation analysis of self-improving humor and coping strategies

A Spearman rank correlation analysis was conducted to explore the relationship between self-improvement humor style and coping strategies among two populations. The analysis included all groups, and the results revealed varying correlations between the variables. Specifically, self-improvement and acceptance with passive waiting for help exhibited a positive correlation with a small effect size ($r = .15$, $p = .03$). In contrast, self-improvement and acceptance with passive optimism showed a significant positive correlation with a large effect size ($r = .41$, $p = 0$). Self-improvement and acceptance with passive pessimism displayed a non-significant positive correlation with a small effect size ($r = .11$, $p = .12$). Additionally, self-improvement and acceptance with active struggle showed a significant positive correlation with a moderate effect size ($r = .27$, $p = .0$). Finally, self-improvement and denial with dissociation exhibited a significant positive correlation with a small effect size ($r = .14$, $p = .04$). These findings suggest that the relationship between self-improvement humor style and coping strategies varies depending on the type of coping strategy employed.

Table 3.4.

Correlations with self-improving humor and coping strategies

Relationship	N	r value	p value
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Self-improvement humor and Passive waiting for help	189	.15	.04
Self-improvement and Passive pessimism	189	.42	.00
Self-improvement humor and Passive optimism	189	.11	.12
Self-improvement humor and Acceptance and active struggle	189	.27	.0
Self-improvement and Denial and dissociation	189	.14	.049

3.2.1. Correlation analysis of self-improving humor and coping strategies among Ukrainians

A Spearman rank correlation analysis was conducted to investigate the correlation between self-improvement humor style and coping strategies among Ukrainians. The analysis included all Ukrainian groups, and the results revealed varying relationships between the variables. Specifically, self-improvement and acceptance with passive waiting for help demonstrated a non-significant positive correlation with a small effect size ($r = .14$, $p = .14$). On the other hand, self-improvement and acceptance with passive optimism exhibited a significant positive correlation with a large effect size ($r = .39$, $p = 0$). Self-improvement and acceptance with passive pessimism displayed a non-significant positive correlation with a negligible effect size ($r = .05$, $p = .58$). Furthermore, self-improvement and acceptance with active struggle showed a significant positive correlation with a small to moderate effect size ($r = .24$, $p = .01$). Finally, self-improvement and denial with dissociation exhibited a non-significant positive correlation with a small effect size ($r = .11$, $p = .25$). These findings suggest that the relationship between self-improvement humor style and coping strategies among Ukrainians varies depending on the specific coping strategy employed.

Table 3.5

Correlations with self-improving humor and coping strategies. Ukrainians

Relationship	N	r value	p value
Self-improvement humor and Passive waiting for help	106	.14	.14
Self-improvement and Passive pessimism	106	.39	.00

Self-improvement humor and Passive optimism	106	.05	.58
Self-improvement humor and Acceptance and active struggle	106	.24	.01
Self-improvement and Denial and dissociation	106	.11	.26

3.2.2. Correlation analysis of self-improving humor and coping strategies among Americans

A Spearman rank correlation analysis was conducted to examine the relationship between self-improvement humor style and coping strategies among Americans. The analysis included five coping strategies, and the results indicated diverse correlations between the variables. Firstly, self-improvement and acceptance with passive waiting for help displayed a non-significant positive correlation with a small effect size ($r = .15$, $p = .16$). On the other hand, self-improvement and acceptance with passive optimism showed a significant positive correlation with a large effect size ($r = .43$, $p = 0$). Additionally, self-improvement and acceptance with passive pessimism exhibited a significant positive correlation with a moderate effect size ($r = .26$, $p = .01$). Moreover, self-improvement and acceptance with active struggle demonstrated a significant positive correlation with a moderate effect size ($r = .30$, $p = .005$). Lastly, self-improvement and denial with dissociation revealed a non-significant positive correlation with a small effect size ($r = .18$, $p = .08$). These findings suggest that the association between self-improvement humor style and coping strategies varies among Americans depending on the specific coping strategy employed.

Table 3.6

Correlations with self-improving humor and coping strategies. Americans

Relationship	N	r value	p value
Self-improvement humor and Passive waiting for help	83	.15	.16
Self-improvement and Passive pessimism	83	.44	.00
Self-improvement humor and Passive optimism	83	.26	.02
Self-improvement humor and Acceptance and active struggle	83	.3	.01
Self-improvement and Denial and dissociation	83	.18	.09

3.3. Comparative analysis of humor styles, resilience, life satisfaction and coping strategies between Ukrainians and Americans:

A t-test was run to compare aggressive humor, self-improvement humor, and self-destructive humor. Among self-improvement humor and self-destructive humor, there was no significant difference among Americans and Ukrainians. However, there was a significant difference in aggressive humor among Americans ($m=31.66$) and Ukrainians (33.87) ($p=.00$).

Mann-Whitney U test:

A Mann-Whitney U test was used to explore the differences between Americans and Ukrainians for other variables researched in this paper. Ukrainians tended to be less satisfied with life than Americans ($Z=-4.06$, $p=0$), and they also tended to use the coping strategy of passive pessimism ($Z=-2.72$, $p=.01$). On the other hand, Ukrainians tended to use certain coping strategies more than Americans such as acceptance and passive waiting for help ($Z=2.57$, $p=.01$), acceptance and passive optimism ($Z=2.27$, $p=.02$), acceptance and active struggle ($Z=2.15$, $p=.03$). There was no significant difference between Americans and Ukrainians with the other measures used.

3.4 Discussion:

The results of this study show that there are varying degrees of relationships between humor styles, resilience, and coping strategies. Among all groups, the relationship between aggressive humor and the ability to adapt had a weak but significant positive relationship. However, taking into account the country, there was no significant relationship between aggressive humor and the ability to adapt.

For all groups, self-improvement humor had a significant positive relationship with satisfaction with life, engineering resilience, and ecological resilience. For Ukrainians, the result was the same, however, there was no significant relationship between self-improvement humor and ecological resilience among Americans. The country of residence and nationality can play a moderating role in this relationship.

Self-destructive humor had a positive and significant relationship with the ability to adapt. The country played no moderating role in this relationship as the relationship stayed significant when each country was analyzed separately.

Affiliative humor had no significant relationship with any of the other factors. However, among Americans, affiliative humor had a significant positive relationship with ecological resilience. The moderating variable did have an effect on the relationship between these two variables.

When analyzing relationships between different coping strategies and self-improvement humor, there were significant positive relationships with acceptance and passive waiting for help, acceptance and passive optimism, acceptance and active struggle, and denial and dissociation. However, these relationships change when analyzing each group separately. Among Ukrainians, self-improvement humor correlated only with acceptance and passive optimism and acceptance and active struggle. Among Americans, this humor style correlated with acceptance and passive optimism, acceptance and passive pessimism, and acceptance and active struggle. This shows that in stressful situations, Americans and Ukrainians use self-improvement humor differently to cope with the situation.

There were significant differences between Americans and Ukrainians for certain measures that were explored. Ukrainians are less satisfied with life in general than Americans. Ukrainians right now are living in a country that is under invasion, and there are a lot of negative emotions that are common among Ukrainians, and this might play a role in how they view their lives and are satisfied with their situation. Ukrainians also tend to use aggressive humor more often than Americans do. This can also be explained by the fact that Ukrainians are under attack and that they use aggressive humor against the enemy, and this type of humor also unites people. Ukrainians also scored higher in the coping strategies of acceptance and active struggle and acceptance and passive optimism. Americans scored higher in passive pessimism. It is quite difficult to understand these differences as these two populations live in radically different environments with a lot of factors that can play a role in these psychological traits.

3.5 Perspective and limits

Among limitations in this study, men tended to not fill out the survey as much as women. This was true for both Americans and Ukrainians. On the Ukrainian side, more data could be collected to understand differences among Ukrainians as to their living situation before and after the full scale invasion began. Further research should aim to study the different population types within Ukraine to get a fuller picture of the relationships explored and how other moderating

variables might play a role. Another limitation in the study is the accuracy of the questionnaires. For example, subjects often told me that there were questions they didn't understand. For further studies, more analyses can be used to break down different sub-groups among each population. For example, Ukrainians can be divided into their location in the country. More studies can look into the differences among age groups.

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Appendix

Appendix A

Satisfaction with life scale. Шкала задоволеності життям

(Maltby et al. 2015; Klimanska & Haletska 2017)

Participant Instructions: Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your response.

Response Scale:

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

1. In most ways my life is close to my ideal
2. The conditions of my life are excellent
3. I am satisfied with my life
4. So far I have gotten the important things I want in life
5. If I could live my life over, I would change almost nothing

Інструкція: Нижче наведено п'ять тверджень, з якими ви можете погодитися або не погодитися. Використовуючи шкалу від 1 до 7, оцініть своє ставлення з кожним з тверджень та виберіть потрібну цифру навпроти кожного твердження. Шкала оцінювання:

1. Здебільшого моє життя близьке до мого ідеалу
2. Умови мого життя просто чудові
3. Я задоволений своїм життям
4. До цих пір я отримував важливі речі, які я хотів в житті
5. Якби я міг прожити своє життя знову, я б не змінював майже нічого

Appendix B

Бланк «Resilient Systems Scales»

(John Maltby et al, 2017, adaptation into Ukrainian Кліманська М., Галецька І.)

Наступні питання стосуються почуттів, думок і поведінки, які Ви, як правило, використовуєте стосовно стресових подій у Вашому житті. Постарайтесь оцінити ці почуття, думки та поведінку, обираючи відповідь, яка найбільше Вам підходить за шкалою від 1 – “Зовсім не погоджуюсь” до 5 - “Цілком погоджуюсь”

1. Я легко відновлююся після складних ситуацій
2. Я швидко відновлююся після стресових подій
3. Я швидко повертаюся до свого нормального стану після того, як переживу якісь проблеми в своєму житті
4. Я легко повертаюся до свого нормального стану після сильних переживань
5. Я завжди викладаюся на всі сто, незважаючи на те, що може статися в моєму житті
6. Я залишаюся сильним, незважаючи на ті проблеми, які трапляються в моєму житті
7. Навіть якщо виникають якісь проблеми, я готовий діяти для досягнення своїх цілей
8. Що б не трапилось, я знаходжу спосіб довести справи до кінця
9. Мені подобається, коли життя змінюється
10. Мені подобається врегулювати непередбачувані ситуації
11. Невизначені ситуації викликають в мене інтерес
12. Мені подобається, якщо відбуваються зміни в звичайному способі життя

The following questions are about the feelings, thoughts, and behaviors you typically use in relationships stressful events in your life. Try to evaluate these feelings, thoughts, and behaviors by choosing an answer that which suits you.

1. I recover from difficult situations with ease
2. I recover from a stressful time quickly
3. I quickly return to my normal self after a strong feeling of anxiety.
4. I quickly get back to my normal self following problems in my life
5. I always give all I can, regardless of what may happen
6. I remain strong-willed, no matter what problems occur
7. Even when there are problems, I am able to function to achieve my goals
8. No matter what happens, I find ways to get things done
9. I like it when life changes
10. I like coping with unpredictable situations
11. Uncertain situations interest me
12. I enjoy it when there are changes to my routine

Appendix C

Humor Styles questionnaire.

(Martin et al. 2003; Pylat & Haletska)

Ukrainian

Інструкція: Нижче наводиться ряд тверджень, що описують різні моделі поведінки. Не існує правильної або неправильної відповіді, тому що кожна людина індивідуальна. Будь ласка, вкажіть, якою мірою наступні твердження Вас описують, використовуючи шкалу від 1 до 7:

Шкала відповідей: 1-7 (1 = категорично не погоджуюсь; 7 = повністю погоджуюсь)

Зворотні шкали: 1, 7, 9, 15, 16, 17, 22, 23, 25, 29, 31; Афілійований гумор: 1, 5, 9, 13, 17, 21, 25, 29; Гумор, спрямований на самовдосконалення: 2, 6, 10, 14, 18, 22, 26, 30; Агресивний гумор: 3, 7, 11, 15, 19, 23, 27, 31; Гумор, спрямований на самознищення: 4, 8, 12, 16, 20, 24, 28, 32

1. Я рідко сміюся або жартую з іншими людьми.
2. Якщо я відчуваю себе пригніченим то, зазвичай, можу сам себе розвеселити.
3. Якщо хтось зробить помилку, я буду часто дражнити його цим.
4. Я дозволяю людям сміятися наді мною або розважатися за мій рахунок більше, ніж треба.
5. Мені не складно розсмішити інших людей. Мені здається, що я людина, наділена природним почуттям гумору.
6. Навіть коли я на самоті, мене часто можуть розсмішити абсурдні життєві ситуації.
7. Люди ніколи не ображаються та не страждають від мого почуття гумору.
8. Я часто перебільшую висміюючи самого себе, якщо це розважає мою сім'ю або друзів.
9. Я рідко можу розсмішити інших, розповідаючи веселі історії про себе.
10. Якщо я змучений або нещасний, як правило, я намагаюся знайти щось смішне в ситуації, щоб поліпшити собі настрій.
11. Коли я розповідаю жарти чи смішні речі, я, зазвичай, не дуже переймаюсь тим, як інші люди це сприймають
12. Я часто намагаюся зацікавити людей чи сподобатись їм більше, говорячи щось смішне про мої власні слабкості, помилки чи недоліки.
13. Я багато сміюсь і жартую з моїми найближчими друзями.
14. Мій гумористичний погляд на життя не дозволяє мені надто засмучуватись та перейматись різними речима.

15. Мені не подобається, коли люди використовують гумор, щоб критикувати або принижувати когось.
16. Я рідко кажу кумедні речі, які можуть мене принизити.
17. Зазвичай я не люблю розповідати жарти чи розважати людей.
18. Коли я на самоті і почуваю себе нещасним, я намагаюся думати про щось веселе, щоб підбадьорити себе.
19. Іноді я думаю про щось, настільки смішне, що я не можу зупинити себе, щоб не розказати про це, навіть якщо це недоречно в даній ситуації.
20. Часто я перегиною палку висміюючи себе, коли жартую чи намагаюся бути смішним.
21. Мені подобається смішити людей.
22. Зазвичай, коли мені сумно, я втрачаю почуття гумору.
23. Я ніколи не насміхаюся над іншими, навіть якщо це роблять мої друзі.
24. Коли я з друзями чи родиною, мені часто здається, що саме наді мною вони сміються та жартують.
25. Я не часто жартую в колі своїх друзів.
26. З досвіду знаю, що думати про якийсь смішний аспект ситуації часто є дуже хорошим способом впоратися з проблемами.
27. Якщо мені хтось не подобається, я часто жартую над ним або дразню його, щоб принизити.
28. Якщо у мене виникають проблеми чи почуваю себе нещасним, я часто прикриваюся жартами так, що навіть мої найближчі друзі не здогадуються, що я насправді відчуваю.
29. Зазвичай я не можу придумати сказати нічого дотепного, коли я в товаристві інших людей.
30. Мені не потрібне товариство інших людей, щоб бути веселим - я завжди можу знайти над чим посміятись навіть тоді, коли я сам.
31. Навіть якщо щось є дуже смішним для мене, я не буду сміятися чи жартувати, якщо це може образити когось.
32. Дозволяти іншим сміятися наді мною - це мій спосіб тримати моїх друзів та рідних у гарному настрої.

Instruction: Below is a number of statements that describe various behavior models. There's no right or wrong answer, because every person is individual. Please specify to what extent these statements describe you. Use the following scale of answers.

1. I seldom laugh or joke with other people
2. If I feel depressed, I can usually cheer myself up.
3. If someone makes a mistake, I will often tease him with it.
4. I let people laugh at me or have fun at my expense more than I should.

5. It's not difficult for me to make other people laugh. It seems to me that I am a person who has a natural sense of humor.
6. Even when I am alone, I can often laugh at absurd life situations.
7. People never get offended and never suffer from my sense of humor.
8. I often exaggerate when laughing at myself, if it entertains my family or friends.
9. I can rarely make other people laugh when I tell funny stories about myself.
10. If I am sad or unhappy, I usually try to find something funny in the situation to improve my mood.
11. When I tell jokes or funny things, I most often don't worry much about how other people take it.
12. I often try to get other people interested or make them like me more by telling something funny about my weaknesses, mistakes or faults.
13. I laugh and joke a lot with my closest friends.
14. My humoristic view of life doesn't let me to get sad and worry about various things.
15. I don't like when people use humor to criticize or humiliate somebody
16. I seldom tell funny things that can humiliate me
17. Usually, I don't like telling jokes or entertain people.
18. When I am alone and feel unhappy, I try to think about something funny to cheer myself up.
19. Sometimes, I think of something so funny, that I can't stop myself from telling about this, even if it's inappropriate.
20. Sometimes, I got too far, when I joke or try to be funny.
21. I like making people laugh.
22. Usually, I lose my sense of humor when I feel sad.
23. I never mock other people, even if my friends do it.
24. When I am with my friends or family, it often seems to me that it is me, at whom they laugh and joke.
25. I don't joke often with my friends.
26. I know from my experience that thinking about a funny aspect of the situation is often a good way to tackle problems.
27. If I don't like someone, I often make fun of him or tease him to humiliate.
28. If I have problems or I feel unhappy, I often hide myself behind the jokes so that even my closest friends wouldn't guess, what I am really feeling.
29. Usually, I can't come up with saying something witty, when I am with other people.
30. I don't need a company of other people to be funny - I can always find what to laugh at, even when I am alone.
31. Even if I find something very funny to me, I won't laugh or joke if it can offend someone.
32. Letting others laugh at me is my way to keep my friends and family in good mood.

Appendix D

Ways of Coping Scale

(Volkman & Lazaras, 1980); translated into Ukrainian by Rodina et al. 2022)

Table D.1

Стимульний матеріал	0 – у даній ситуації ніколи так	1 – у деякій мірі поволився	2 – здебільшого	3 – поводився загалом
1. Я зосередився тільки на тому, що робити далі.				3
2. Я спробував проаналізувати проблему щоби краще зрозуміти її				3
3. Я відчував, що тільки час може щось змінити, єдине, що лишалося – це	0			
4. Всупереч усім я робив те, що сам вважав за потрібне.			2	
5. Коли виникла проблема з ... (кимось), я спробував знайти людину, яка могла би повпливати на неї (нього).		1		
6. Я спробував прояснити ситуацію, поговоривши із ... (кимось).				3
7. Я не став нічого робити щоби не погіршити ситуацію.	0			
8. Я сподівався на диво.		1		
9. Я скорився долі, мені все одно ніколи не щастить.	0			
10. Я продовжував поводитися так, ніби нічого не сталося.	0			
11. Я спробував побачити позитивну сторону цієї ситуації		1		
12. Я сподівався на співчуття і підтримку від когось.			2	
13. Я втішався і підбадьорювався як міг.		1		
14. Я звернувся по допомогу до людини, яка добре пам'ятає у подібних				3
15. Я склав план дій і дотримувався нього.				3
16. Я хотів чогось хорошого.			2	
17. Я був дуже роздратований і дав волю почуттям		1		
18. У мене з'явився новий погляд на певні речі		1		
19. Я звернувся до людини, яка могла допомогти у цій ситуації				3
20. Я подумав: що не робиться – усе на краще.		1		
21. Щоб заспокоїтись я почав курити (істи, приймати ліки, пити)	0			
22. Я проявив наполегливість і твердість.			2	
23. Завдяки цій ситуації я зрозумів, що насправді важливо у житті.		1		
24. Я зробив певні кроки для того, щоби змінити ситуацію на краще.				3
25. Я не став приділяти цьому надто багато уваги.	0			
26. Я попросив поради у родичів чи друга, думку якого я дуже поважаю.			2	
27. Я намагався сам дати раду своїм проблемам.			2	
28. Я не надав тому, що відбувається великого значення, не сприйняв це надто серйозно.	0			
29. Я поділився з ... (кимось) своїми переживаннями.				3
30. Я плюнув на все, хай роблять що хочуть.	0			
31. Я використав досвід, набутий мною раніше у подібних ситуаціях				3
32. Я знав, що треба робити і доклав до цього зусиль.				3
33. Я прийняв ситуацію такою, яка вона є, адже змінити її було неможливо.				3
34. Я спробував, не дивлячись ні на що, бути об'яктивним у цій ситуації				3
35. Мені хотілося щоби проблема зникла або жось виршилася сама по собі		1		
36. Я фантазував і мріяв як усе могло би змінитися.	0			
37. Я молився богам за допомогу.	0			
38. Я підготувався до найгіршого.		1		
39. Я прокручував у голові, що я можу зробити чи сказати у цій ситуації				3
40. Я спробував заспокоїтись, перед тим як вирішити, що робити далі			2	
41. Я вирішив, що це не найгірше, що могло би статися і буває й гірше.				3
42. Після цього випадку у мене з'явилося багато нових ідей і планів.		1		

Table D.2

Шкали:	Сирі бали	Середній нормативний діапазон	Мах бал по шкалі (100%)	Результат,% (Сирі бали*100/ мах бал)
«Прийняття і пасивний розрахунок на допомогу» (пункти № 5, 6, 8, 12, 13, 14, 16, 17, 19, 26, 29).	22	11-22	33	66,7
«Прийняття і пасивний песимізм» (пункти № 3, 7, 9, 10, 25, 28, 30, 33).	3	8-16	24	12,5
«Прийняття і пасивний оптимізм» (пункти № 11, 20, 31, 32, 40, 41, 42).	14	7-14	21	66,7
«Прийняття і активна боротьба» (пункти № 1, 2, 4, 15, 22, 23, 24, 27, 34).	22	9-18	27	81,5
«Неприйняття та дисоціація» (пункти № 18, 21, 35, 36, 37, 38, 39).	6	7-14	21	28,6

Appendix E

Informed consent

This study aims to investigate the relationships between humor styles, coping strategies, and resilience among two populations: Ukrainians and Americans. All responses will be anonymous. Remember that there is no right or wrong answer, and every participant is important to me.

Дане дослідження має на меті дослідити зв'язки між стилями гумору, стратегіями копіngu та резильєнтністю (стійкістю) посеред двох населень: українців і американців. Усі відповіді будуть анонімними. Пам'ятайте, що немає правильної чи неправильної відповіді, а кожна учасниця / кожен учасник для мене важлива / важливий)