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Metka Kuhar, Irena Bolko, Rok Zupančič

Polyvagal Perspective on Ethnic Distance and Well-Being in Bosnia-Herzegovina: Mediating Effects of Physiological Reactivity and Body Awareness

In this study, the responses of 182 Bosniaks were analysed to examine the interplay between previous adversity (past challenging or traumatic experiences a person has faced), mental well-being, and ethnic distance in Bosnia and Herzegovina through the lens of polyvagal theory, which emphasises the role of physiological reactivity and body awareness. The results show that there is no direct association between past adversity and well-being or ethnic distance. However, previous adversity is a significant predictor of autonomic reactivity and body awareness, which serve as mediators of well-being and ethnic distance. These findings point to the potential benefits of trauma-informed interventions to improve social cohesion in post-conflict settings.

Keywords: polyvagal theory, ethnic distance, mental well-being, adversity, autonomic reactivity, body awareness, Bosnia-Herzegovina.

Polivagalna perspektiva etnične distance in blagostanja v Bosni in Hercegovini: mediacijski učinek fiziološke reaktivnosti in telesnega zavedanja

V študiji na vzorcu 182 Bošnjakinj in Bošnjakov proučujemo medsebojen vpliv preteklih obremenjujočih izkušenj (težkih ali travmatičnih izkušenj, s katerimi se je posameznik soočil v preteklosti), duševnega blagostanja in etnične distance v Bosni in Hercegovini skozi prizmo polivagalne teorije, ki poudarja vlogo fiziološke reaktivnosti in telesnega zavedanja. Rezultati kažejo, da med preteklimi obremenjujočimi izkušnjami, duševnim blagostanjem ali etnično distanco ni neposredne povezave, so pa pretekle obremenjujoče izkušnje pomemben napovednik avtonomne reaktivnosti in telesnega zavedanja kot mediatorjev blagostanja in etnične distance. Ugotovitve študije kažejo, da so intervencije, utemeljene na razumevanju travme, lahko potencialno koristne za izboljšanje družbene kohezivnosti v pokonfliktnih okoljih.

Ključne besede: *polivagalna teorija, etnična distanca, duševno blagostanje, stiska, avtonomna reaktivnost, telesno zavedanje, Bosna in Hercegovina.*

Correspondence address: Metka Kuhar, Faculty of Social Sciences, Chair of Media Studies, Kardeljeva ploščad 5, 1000-Ljubljana, Slovenia, e-mail: metka.kuhar@fdv.uni-lj.si; Irena Bolko, Faculty of Social Sciences, Kardeljeva ploščad 5, 1000-Ljubljana, Slovenia, e-mail: irena.bolko@gmail.com; Rok Zupančič, Faculty of Social Sciences, Chair of Defence Studies, Kardeljeva ploščad 5, 1000-Ljubljana, Slovenia, e-mail: rok.zupancic@fdv.uni-lj.si.

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1. Introduction

In contemporary society, the complex and nuanced effects of adversity on individuals and whole communities, especially in regions recovering from armed conflict, require careful study and understanding. The impact of significant adversity lasts for decades and often severely affects the survivors and subsequent generations (Bayar 2023; Wirth 2023). Bosniak communities in Bosnia-Herzegovina (BiH) are a compelling example of this, having endured great turmoil and instability not only during the 1992–1995 war but also in the post-conflict period. This ongoing adversity encompasses a wide range of political, economic, social, psychological and other problems that remain unresolved (Zupančič et al. 2021; Kočan et al. 2024). This study aims to explore the intricate dynamics of how accumulated adversity, beyond just war-related trauma, affects mental well-being and shapes ethnic relationships.

Our aim is to shed light on the role of the autonomic threat response sensitivity and how it may mediate the intricate relationships between adversity, mental well-being and ethnic distance. Previous research, including work by Cabrera et al. (2018), Jokić et al. (2023), and Kolacz et al. (2020a), has greatly enhanced our understanding of the complex interplay between body awareness, autonomic reactivity and mental health in the face of past adversities. However, these studies focused predominantly on the dimension of mental health.

Our study proposes to broaden the analytical lens to include the concept of ethnic distance. We aim to explore how these established correlates may manifest in unique and complex ways in ethnic relationships, especially in the specific context of post-conflict Bosniak communities, who live in a country facing severe conventional and unconventional security threats that go beyond interethnic issues (Mikac et al. 2022). By including ethnic distance in our study, we aim to decipher the complex interactions between these variables and how they influence each other.

This comprehensive approach aims not only to enrich the existing knowledge base and provide a broader perspective on the repercussions of various forms of adversity but also to identify specific factors that could assist people from different communities in BiH and beyond on their path to recovery and resilience. We aim to open new opportunities to improve social harmony, enhance mental well-being, and contribute to the long-term stability and thriving of these communities, laying the foundation for a more resilient future (Kočan & Zupančič 2024). We also aim to contribute to the existing scholarship of peacebuilding; namely, this academic field, which primarily focuses on political, economic, sociological, cultural and other forms of interventions, which, with a few exceptions (Brom et al. 2017; Mansfield 2020; Močnik 2020), do not tap into the potential that trauma-informed interventions could yield for the practice and theory of peacebuilding.

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2. Understanding the Role of Polyvagal Theory in Mental Well-Being and Ethnic Distance

Traditionally, the consequences of conflict have been managed through psychosocial support for people with severe mental health problems, such as posttraumatic stress disorder (PTSD) (Miller & Rasmussen 2010; Wessels 2007). However, this approach offers a limited perspective because it does not consider the wide-ranging effects of stress on those who do not meet the criteria for PTSD but still experience significant psychological and social disturbances (Blanco et al. 2016). In post-conflict societies, such as BiH, where people have faced various forms of adversity, such traumatic experiences solidify ethnic identities, anchor them in group narratives and collective memory, and subsequently influence attitudes and relationships with other ethnic groups (Bar-Tal et al. 2009; Djordjević & Zupančič 2024; Hirschberger 2018; Volkan 2001). These narratives, laden with stereotypes and emotions, play a crucial role in public discourse, self-definition, and expression. They reflect deep-seated fears and perceived threats to identity that fuel ethnic conflict (Džuverović 2018; Solymari & Gibarti 2023; Toroš 2021).

Against this backdrop, manifestations of past adversities are not limited to psychological symptoms but extend to challenges to mental well-being and strained interethnic relationships. This brings us to our first hypothesis: individuals with higher levels of previous adversities are more likely to exhibit reduced mental well-being and greater ethnic distance. In this context, ethnic distance encompasses the emotional and social distance that individuals maintain with members of different ethnic groups. It serves as a quantifiable measure of attitude towards and comfort level with people from different ethnic backgrounds, a concept that has been used extensively in studies of intergroup relations in various countries to measure attitudes towards numerous groups (Parrillo & Donoghue 2013; Wark & Galliher 2007).

In recent decades, our understanding of the neurobiological underpinnings of trauma has improved considerably, particularly regarding the role of the autonomic nervous system (ANS) and changes in brain structure and function (Frewen & Lanius 2015; Porges 2011; Schore 1994; 2019). These findings have prompted a shift in trauma care toward body-based interventions and highlighted their effectiveness (Kearney & Lanius 2022; Kuhfuß et al. 2021; Levine 1997; 2010; 2015; Ogden et al. 2006; Payne et al. 2015; van der Kolk 2014).

Stephen Porges' polyvagal theory stands out and provides a comprehensive framework for understanding the effects of trauma and stress on the ANS and the resulting consequences they have on emotional regulation, social engagement and overall well-being (Porges 2001; 2003; 2009; 2017). The ANS forms a complex network of motor and sensory connections integrated with the brain-

stem, spinal cord, and organs that coordinates various physical functions, such as cardiac output, sweating, breathing and digestion. In the face of danger, the ANS promotes defensive bio-behavioral reactions, and its state can influence cognitive and emotional processes via pathways that connect higher-level brain regions to the brainstem.

This theory systematically categorises human responses to threats into distinct physiological pathways. These pathways correlate physiological states with psychological traits, social behaviors, and responses to perceived risk. When faced with a threat, the physiological state influences the range of emotional traits and behaviors available to a person. A sense of safety fostered by the dominance of the ventral vagal complex promotes flexible engagement, prosocial behaviors and feelings of connectedness, as outlined by Porges (2011; 2021). Conversely, a sympathetic nervous system response puts us in fight-or-flight mode, while a dorsal vagal response leads to numbness and withdrawal (Porges 2022).

Polyvagal theory emphasises the crucial role of a regulated ANS in achieving and maintaining a balanced state of body awareness and autonomic reactivity to stressors. A dysregulated ANS, often due to chronic stress or trauma, can significantly hinder an individual's ability to connect with their bodily sensations and lead to diminished body awareness (Levine 1997; 2010; Ogden et al. 2006; Payne et al. 2015; Rothschild 2000; van der Kolk 2014). Sensitivity to the body's own signals is a multi-layered concept that goes beyond a simple categorisation of more is better or less is better. In clinical contexts, heightened body awareness and somatosensory amplification are often observed in conditions such as anxiety and panic disorders. This heightened sensitivity can sometimes prove unfavourable and lead to an excessive focus on bodily sensations. Conversely, a weakened or diminished perception of body signals is a characteristic feature of eating disorders, where there is a disconnection or misinterpretation of internal cues. In addition, maladaptive rumination about interoceptive signals is frequently observed in depression, indicating a complex relationship between body awareness and mental health conditions (Jokić et al. 2023).

The concept of autonomic reactivity, as explained in polyvagal theory, sheds light on how past adversity can prime the ANS to overreact to perceived danger. This heightened reactivity is linked to an increased sensitivity to stressors, profoundly influencing an individual's perception and response to threats. Cabrera et al. (2018) demonstrated that individual perceptions of autonomic reactivity are best described in terms of distinct responses in the subdiaphragmatic and supradiaphragmatic regions. Individuals with adverse histories exhibit this increased autonomic reactivity, often accompanied by reduced flexibility in regulating the ventral vagal parasympathetic system and the sympathetic nervous system (Kolacz et al. 2020a). Consequently, these individuals are prone to intense reactions to stressors, elevating their risk for various mental health problems and diminishing their overall mental well-being (Kolacz et al. 2020b).

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In situations, such as those experienced by the people of BiH, the ANS is heavily burdened by constant stress factors, ranging from war-related trauma to economic instability and political uncertainty. Various forms of adversity affect the ANS by keeping it in a heightened state of alertness, causing individuals to overreact to perceived threats (McCrory et al. 2011). Ongoing economic challenges contribute to chronic stress. Living in an environment of political uncertainty and instability further exacerbates the stress response, which can lead to long-term changes in ANS function. The combined effect of these stressors leads to a distorted perception of threats. Individuals can become hypersensitive to potential danger and perceive threats even in safe situations (Sukhera & Watling 2018). This can lead to maladaptive defensive behaviours and a general state of hyperarousal, which is often observed in individuals from post-conflict areas (López Castaneda & Myrttinen 2022; Zupančič 2019). Thus, our second hypothesis is as follows: individuals who have encountered higher levels of previous adversity are likely to exhibit either hyper- or hyposensitive body awareness, accompanied by increased autonomic reactivity.

Furthermore, based on polyvagal theory, we can postulate that there is an intricate interconnectedness between ANS responses, emotions, and prejudices, including ethnic prejudices. This theory suggests that the physiological state dictated by the ANS can unconsciously influence emotional reactions and potentially predispose people to certain biases (Porges 2017; 2021b). Studies have shown that these biases, which are embedded in our unconscious emotional responses, subtly influence our reactions and interactions (Lueke & Gibson 2014; Storbeck & Clore 2008; Tan & Yip 2018). In this context, ethnic bias means an often unconscious inclination towards or against a particular ethnic group. Far from being temporary or superficial, these biases are burned into our neural networks and affect our sense of safety when interacting with those perceived as the others. This dynamic is crucial in environments characterised by historical conflict, where past adversities are not only personal but interwoven with collective ethnic narratives. This interplay of past adversities, ANS reactions and biases brings us to our third hypothesis: previous adversity predicts mental well-being and ethnic distance both directly and indirectly through increased autonomic reactivity and body awareness.

However, it is crucial to emphasise that our theoretical framework, anchored in polyvagal theory, argues for a broader interpretation of the impact of previous adversity on ANS dysregulation. Polyvagal theory highlights how physiological responses to stress, characterised by both trauma and resilience, can manifest in different contexts, including ethnic relationships. In our study, we treat previous adversity as a holistic variable, rather than distinguishing between specific sources, such as war trauma or other adversities, since adversity, regardless of its origin, contributes to a common pathway of ANS dysregulation. This physiological dysregulation has profound implications not only on individual mental well-

being but also on the dynamics of interethnic relationships in the post-conflict recovery phase. Particularly in post-conflict areas, the frequency and ongoing nature of these adversities further contribute to dysregulation. By examining previous adversity as a unitary construct, we aim to capture the cumulative impact of all forms of adversity on the body's regulatory mechanisms, thereby revealing how these changes may influence both psychological well-being and the ethnic distance perceived by people in post-conflict societies.

3. Methodology

3.1 Participants

The participants were recruited on an online survey panel run by a Slovenian research agency that has an established office in BiH, ensuring a well-organised and easily accessible recruitment process. The panel consists of individuals who have proactively given their informed consent to participate in online surveys and receive modest financial compensation for their contributions in line with the regular policy of the public opinion poll agency, which conducted the survey. For the purposes of our study, a computer-assisted web interview (CAWI) was employed.

Our data collection relied on a pre-consented panel of participants. Nevertheless, the participants were again asked for consent to ensure compliance with the General Data Protection Regulation (GDPR) and to confirm their voluntary participation in this study.

The survey was conducted in April 2023. We applied quota sampling and collected data from a panel. Quota cells were established as a combination of gender and age group. The survey was taken by 280 people, and the final sample size resulted in 182 Bosniaks from the following cantons in the Federation of BiH: Tuzla Canton (25.3%), Sarajevo Canton (21.4%), Zenica-Doboj Canton (17.6%), Central Bosnia Canton and Herzegovina-Neretva Canton (both 10.4%), Una-Sana Canton (9.3%), Canton 10 (3.3%), and Bosnia-Podrinje Canton (2.2%). Of the participants, 98 were excluded for various reasons before starting the survey: for not representing the Bosniak community (n = 88) or being younger than 18 years (n = 1), while others did not complete the survey (n = 9, of whom some did not answer any questions and others only answered first few questions).

The sample was gender balanced, with 49.5% of women and 50.5% of men. The mean participant age was 44.02 years (*SD* = 14.23, *Min* = 18, *Max* = 74). Regarding their education, 10.9% of participants had completed primary school or professional/vocational training, 44.5 % had attained high school, and 43.1% had had a post-secondary education or graduate degree. Among the participants, 64.8% described their current place of residence as urban, 24.2% as suburban, and 11.0% as rural.

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3.2 Measures

3.2.1 Previous Adversity

We utilized the Adverse and Traumatic Experiences Scale to assess previous adversity (Kolacz et al. 2020a). This scale integrates elements from various measures, including the ACES, Trauma History Questionnaire, Life Events Checklist for DSM-5, and Brief Trauma Questionnaire. The scale consists of 19 items. It encompasses categories like childhood adversities, maltreatment, life-threatening situations, and sudden deaths, among others. Notably, the scale includes items such as Physical assault (e.g., being attacked, hit, slapped, kicked, beaten up) and Assault with a weapon (e.g., being shot, stabbed, threatened with a knife, gun, or bomb). These elements are combined to formulate an adversity score. The answers are rated on a binary scale (0 = no, 1 = yes), with the total score ranging from 0 to 19 to indicate the extent of the adverse experience. The Kuder-Richardson 20 was 0.72.

3.2.2. The Body Perception Questionnaire Short Form (BPQ-SF)

The BPQ-SF, developed by Cabrera et al. (2018), is a psychometric instrument that assesses two components related to a person's awareness and responsiveness to bodily signals: Body Awareness and Autonomic Reactivity.

Body Awareness measures a person's awareness of internal bodily functions, such as muscle tension in the face or sweating palms. Following Cabrera et al. (2018), who conducted a study validating body awareness as a single factor, we used body awareness as a single variable in our analysis. It comprises 26 items rated on a 5-point Likert scale ranging from never to always. Higher scores indicate a heightened sensitivity or hypersensitivity, reflecting an acute awareness of bodily changes and reactions. Conversely, lower values indicate a diminished sensitivity or hyposensitivity, i.e., a less pronounced awareness of bodily sensations. After excluding three items because of low component loading, a single component explained 34.3% of the variance. The Cronbach's alpha was 0.91.

Autonomic Reactivity focuses on self-reported experiences of reactivity in organs and tissues controlled by the ANS. Following other researchers, such as Kolacz et al. (2020a), we used an autonomic reactivity subscale of 20 items that assess typical responses of functions both above the diaphragm, such as sweating in the armpits, and below the diaphragm, particularly gastrointestinal functions, such as constipation and indigestion. Higher scores on this subscale indicate impaired autonomic reactivity, characterised by reduced parasympathetic activity and reduced flexibility of parasympathetic and sympathetic responses to challenges (Kolacz et al. 2020a). The responses are recorded on a 5-point Likert scale, ranging from never to always. We excluded one item because of low

component loading, and a single component explained 38.6% of the variance. The Cronbach's alpha was 0.91.

3.2.3 Ethnic Distance

We adapted Bogardus' (1925) social distance scale to assess respondents' attitudes towards Croats. Participants were asked to indicate their agreement with seven statements on a 5-point Likert scale that depict their attitude toward the other ethnic group, ranging from strongly agree to strongly disagree. We applied a recently proposed social distance intensity score (Mather et al. 2017), which combines the Bogardus-Guttman cumulative scale with the Likert scale. The items were as follows: "I would be willing to accept a Croat as a close relative by marriage", "I would be willing to accept a Croat as a close personal friend", "I would be willing to accept a Croat as a neighbour in the same street", "I would be willing to accept a Croat as a coworker", "I would be willing to accept a Croat as a citizen of my country", "I would be willing to accept a Croat as a visitor in my country", "I would not exclude a Croat from my country". A single component explained 67.0% of the variance and the Cronbach's alpha was 0.86.

3.2.4 Mental Well-Being

Building on the Mental Health Continuum-Short Form (MHC-SF) (Keyes 2002; Lamers et al. 2011), we developed an extended instrument that captures more comprehensive aspects of mental well-being. Our modification is grounded in the biopsychosocial model of health, which integrates biological, psychological and social factors (Engel 1977). Although the original MHC-SF already includes comprehensive dimensions of well-being based on Ryff's model – such as personal growth, meaning in life, autonomy and life satisfaction (Ryff 1989; Ryff & Keyes 1995) – it is important to us that these dimensions are well represented and relevant in the context of our study. Therefore, our extended instrument also includes items that capture physical states, such as feeling calm and relaxed, having energy, and the ability to concentrate. These items were added to gain a holistic understanding of well-being, particularly under stressful conditions and following trauma. In addition, elements of personal growth, such as experiencing life as meaningful and feeling authentic in one's identity, are emphasised to reflect the principles of positive psychology, which highlights life satisfaction and personal development as key components of mental health (Seligman & Csikszentmihalyi 2000). These elements are particularly important following trauma, as recovery involves not only the alleviation of symptoms but also the rebuilding of a meaningful life.

The scale comprised 14 items assessed on a 5-point Likert scale ranging from never to always. Exploratory factor analysis suggested one common factor.

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The Kaiser-Meyer-Olkin measure confirmed the sampling adequacy (0.95), and Bartlett's test of sphericity ($\chi 2(136) = 1916{,}940$, $p < 0.001$) indicated that correlations between items were sufficiently large. Owing to small factor loading, we excluded one of the items and tested a new component solution, explaining the 53.9% variance. The Cronbach's alpha was 0.94.

3.3 Data Analysis

In the first step, we examined Pearson's correlations between age and the following study outcomes: previous adversity (PA), body awareness (BA), autonomic reactivity (AR), ethnic distance (ED), and mental well-being (MW). We also checked for any gender differences in the outcomes by applying independent sample t-tests.

In the second step, we performed the mediation analysis where we tested for the possible association of PA on one hand and ED and MW on the other, as well as for a possible mediation effect of body perception, where BA and AR were applied as mediators. Hence, we tested the following models: (1) PA – BA – ED, (2) PA – AR – ED, (3) PA – BA – MW, and (4) PA – AR – MW. In all four models, we controlled for age and gender. By holding these two variables constant, we tried to better understand the direct relationship between independent and dependent variables, as well as to assess the mediation effect after accounting for age and gender.

We followed Baron and Kenny's method (1986), applying a combination of linear and multiple regression to describe the mediation effect. In the first step, we estimated the relationship between the independent and dependent variable, followed by the estimation of the relationship between the independent variable and mediator, on one hand, and the mediator and the dependent variable on the other, while controlling for the independent variable. Finally, we estimated the relationship between the dependent variable on the independent variable while controlling for the mediator. We tested the significance with the bootstrapping approach to determine nonparametric Bootstrap Confidence Intervals with the Percentile Method based on 500 bootstrap samples (Imai et al. 2010; Preacher & Hayes 2004). The bootstrapping approach was conducted to increase the power of testing. We obtained the following three indicators: total effect, estimating the total effect of the independent variable on the dependent variable; average causal mediation effect (ACME), estimating indirect effect through the mediator variable (this is the product of the effect of the independent variable on the mediator and the effect of the mediator on the dependent variable); and average direct effect (ADE), estimating the direct effect of the independent variable on the dependent variable after controlling for the mediator. Data analysis was conducted using SPSS (IBM SPSS Statistics 25) and R software, namely the mediation (Tingey et al. 2014) and stargazer (Hlavac 2022) packages.

4. Results

4.1 Descriptive Statistics and Correlations

The descriptive statistics and correlations between all the variables are presented in Table 1. We can observe statistically significant gender differences in body awareness ($t(180) = -3.22$, $p = 0.002$) and autonomic reactivity ($t(180) = -3.82$, $p<0.001$), as well as in ethnic distance ($t(180) = -2.25$, $p = 0.025$), with women scoring higher on all three scales (see Table 1). There are few significant correlations between the observed variables, and they are all low. Age is positively correlated with ethnic distance, previous adversity is positively correlated with both body awareness and autonomic reactivity. Body awareness and autonomic reactivity are both negatively correlated with mental well-being, while autonomic reactivity is also negatively correlated with ethinic distance (see Table 1).

Table 1: Descriptive statistics and correlations of the outcome variables

	Previous Adversity	Body Awareness**	Autonomic Reactivity**	Ethnic Distance*	Mental Well-Being
Total sample M N = 182 (SD)	2.84 (2.63)	56.40 (14.11)	34.91 (10.78)	128.74 (14.95)	57. 61 (15.20)
Female M n = 90 (SD)	2.70 (2.73)	59.65 (14.27)	37.82 (11.49)	131.18 (12.15)	55. 91 (15.55)
Male M n = 92 (SD)	2.98 (2.51)	53.08 (13.21)	31.93 (9.14)	126.24 (17.06)	59. 34 (14.73)
Pearson's r					
Age	0.04	–0.10	0.04	0.20*	–0.01
PA		0.21**	26**	–0.04	–0.14
BA			0.79**	–0.13	–0.32**
AR				–0.17*	–0.32**
ED					0.14

Source: Data obtained from the authors' research.

*p<0.05; **p<0.01

4.2 Mediation Analysis

In the first step, we estimated the direct effect of previous adversity on ethnic distance and mental well-being. The results are presented in Table 2. No significant association was found between previous adversity and ethnic distance (p = 0.56), but there was a significant negative association between previous adversity and mental well-being (p = 0.05). In both cases, we controlled for age and gender.

DOI:10.2478/tdjes-2024-0008

Table 2: Testing the direct effect of previous adversity on ethnic distance and mental health

	Dependent variable	
	Ethnic Distance	Mental Well-Being
	Estimate (SE)	Estimate (SE)
Control variables		
Gender	4.54* (2.17)	–3.68 (2.24)
Age	0.19* (0.08)	0.01 (0.08)
Predictors		
Previous Adversity	–0.24 (0.41)	–0.85* (0.43)
Adjusted R	0.05	0.02

Source: Data obtained from the authors' research.

*p<0.05

Although we did not find a significant association between previous adversity and ethnic distance, we still tested for the possible mediation effect of both body perception dimensions, namely, body perception and autonomic reactivity. The results are presented in Tables 3 and 4. Previous adversity was a significant predictor of both body awareness (p = 0.001) and autonomic reactivity (p<0.001) when controlling for age and gender (see Table 3). Body awareness was significantly associated with ethnic distance (p = 0.04) and mental well-being (p = 0.002). Similarly, autonomic reactivity was also significantly associated with both constructs – ethnic distance (p<0.001) and mental well-being (p<0.001). In both cases, we controlled for the independent variable – previous adversity – as well as for age and gender (see Table 4).

Table 3: Testing the effect of previous adversity on the two mediating variables, body awareness and autonomic reactivity, when controlling for gender and age

	Dependent variable	
	Body Awareness	Autonomic Reactivity
	Estimate (SE)	Estimate (SE)
Control variables		
Gender	7.13*** (1.99)	6.19*** (1.49)
Age	–0.12 (0.07)	0.01 (0.05)
Predictors		
Previous Adversity	1.24** (0.38)	1.14*** (0.28)
Adjusted R	0.10	0.14

Source: Data obtained from the authors' research.

**p<0.01; ***p<0.001

Table 4: Testing the effect of previous adversity and the two mediating variables, body awareness and autonomic reactivity, on the two dependent variables, ethnic distance and mental health, when controlling for gender and age

	Dependent variable			
	Ethnic Distance		Well-Being	
	Estimate (SE)	Estimate (SE)	Estimate (SE)	Estimate (SE)
Control variables				
Gender	5.74* (2.23)	6.61** (2.22)	–1.46 (2.24)	–1.08 (2.26)
Age	0.17*(0.08)	0.20** (0.07)	–0.03 (0.08)	0.01 (0.08)
Predictors				
Previous Adversity	–0.03 (0.42)	0.14 (0.42)	–0.47 (0.42)	–0.37 (0.43)
Body Awareness	–0.17*(0.08)		–0.31*** (0.08)	
Autonomic Reactivity		–0.33** (0.11)		–0.42*** (0.11)
Adjusted R	0.06	0.09	0.09	0.09

Source: Data obtained from the authors' research.

*p<0.05; **p<0.01; ***p<0.001

In total, we tested four models (see Table 5). The bootstrapping approach showed that in the first model, PA – BA – ED, we found a significant indirect mediation effect of body awareness (ACME) but no direct effect of previous adversity (ADE), and the total effect was also not significant (Total Effect). In the second model, PA – AR – ED, similar outcomes were observed. We found a significant mediation effect of autonomic reactivity (ACME), but no significant direct effect (ADE) and no total effect.

Table 5: Mediation models indicator estimates based on the boothstrapping method

Model	Indicator	Estimate	95 % CI [lower, upper]		p
PA – BA – ED	ACME	–0.2083	–0.5149,	–0.01	0.048
	ADE	0.0325	–0.7904,	0.64	0.956
	Total Effect	–0.2407	–1.1358,	0.49	0.568
PA – AR – ED	ACME	–0.382	–0.800,	–0.10	0.008
	ADE	–0.141	–0.657,	0.91	0.612
	Total Effect	–0.241	–1.199,	0.56	0.568
PA – BA – MW	ACME	–0.3860	–0.6722,	–0.12	<0.001
	ADE	–0.4668	–1.2048,	0.23	0.208
	Total Effect	–0.8528	–1.6090,	–0.05	0.048
PA – AR – MW	ACME	–0.480	–0.8566,	–0.18	<0.001
	ADE	–0.372	–1.217,	0.40	0.324
	Total Effect	–0.853	–1.710,	–0.04	0.032

Source: Data obtained from the authors' research.

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In the third model, PA – BA – MW, we again found a significant mediation effect of body awareness (ACME). Again, we did not find a significant direct effect (ADE), but in this model the total effect was significant. In the fourth model, PA – AR – MW, the mediation effect of autonomic reactivity was also significant (ACME), while the direct effect was not (ADE), but again we found a significant total effect.

5. Discussion

The connection between previous adversity and its multiple associations with individuals' physiological responses, mental well-being, and social perceptions formed the core of our investigation.

Contrary to our expectations, the first hypothesis, which postulated an association between previous adversity and ethnic distance, was not confirmed. However, we did find a negative association between previous adversity and mental well-being, and the bootstrapping approach confirmed the total effect of previous adversity on mental well-being.

In this study, we acknowledge the multifaceted nature of mental well-being, as well as the heterogeneity of trauma responses. We have recognised that, particularly in post-conflict areas, context has a pronounced influence on the overall well-being of individuals. The well-being of people in these areas is not only closely linked to their personal trauma history, but it is also significantly influenced by the prevailing social conditions. The association between cumulative adversity and mental well-being is further nuanced by numerous factors, such as individual resilience and availability of social support, both of which are well-established as central in moderating the effects of trauma (Kuhar & Zager Kocjan 2021).

Our findings, which did not substantiate the hypothesized link between previous adversity and ethnic distance, may reflect the intricate nature of ethnic distance. This is a layered construct, influenced by an array of factors, not solely personal traumatic experiences. It intertwines with societal influences and perceptions, as well as broader personal experience, such as the quantity and quality of contact with outgroup members.

Furthermore, the measurement instrument we used for investigating prior trauma – the Adverse and Traumatic Experiences Scale – was originally developed to capture a broad spectrum of traumatic experiences, ranging from intimate personal assaults to widespread environmental disasters. Even though this scale effectively captures the range of adverse experiences, it cannot specifically capture or isolate the ethnic components of adversity that may have a direct impact on ethnic distance.

The central thrust of our study was to capture the impact of cumulative adversity using self-reported measures of physiological responses, which encompass

often-overlooked inherited traumas. In this way, we aimed to explore the effects of trauma manifest in present-day physiological patterns and, consequently, in psychological and social patterns. Consistent with our second hypothesis, we found that previous adversity was a significant predictor of increased body awareness and increased autonomic reactivity, supporting the claims of Porges' polyvagal theory (Porges 2001; 2003; 2009; 2017; 2021; Porges & Dana 2018). Given the empirical evidence presented in previous studies, including those by Jokić et al. (2023) and Kolacz et al. (2020a; 2020b), and corroborated by our research findings, it is evident that past adversity can leave lasting physiological effects. These effects significantly alter the way individuals perceive their own bodies and modulate their physiological responses to stressors, providing further empirical support for the somatic legacy of past adversity on the human body and nervous system (Grabbe & Miller-Karas 2018; Kearney & Lanius 2022; Levine 1997; 2010; 2015; Ogden et al. 2006; Payne et al. 2015; van der Kolk 2014).

Our third hypothesis was partially confirmed. Although the results suggest an indirect, mediating effect of either body awareness or autonomic reactivity on ethnic distance and mental well-being, we did not find any direct effect of previous adversity on either ethnic distance or mental well-being when controlling for body perception, autonomic reactivity, and for gender and age.

While our findings suggest that cumulative adversity could potentially change a person's body awareness and autonomic reactivity, subsequently affecting their mental well-being and ethnic distance, it is important to note the modest nature of these effects. In line with existing studies (Jokić et al. 2023; Kolacz et al. 2020a), our findings suggest that body awareness and autonomic reactivity may act as mediators between previous adversity and mental well-being. This indicates the potential for physiological responses also to shape sociocultural perceptions and relationships, and it could suggest that while the physiological imprint of adversity is not a robust predictor of ethnic distance alone, it may still play a role in a broader mosaic of factors.

Given the small magnitude of the observed effects, especially those related to ethnic distance, any suggestions for interventions should be taken with caution. Our findings suggest that while interventions targeting body awareness and autonomic reactivity offer some potential to affect ethnic distance, such effects are likely to be subtle and need to be considered as one component within a comprehensive approach to reconciliation and peacebuilding (Kuhar et al. 2023). This aligns with suggestions by other researchers, such as Brett et al. (2024), who have, although not directly as we do in this paper, proposed that future research should be more focused on the body and embodied interventions. This could not only have profound implications for healing in societies struggling with the legacies of historical trauma, but it could also lead the actors involved in peacebuilding and reconciliation initiatives to readjust their

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programmes to incorporate trauma-informed approaches in post-conflict societies. However, the application of our findings in post-conflict situations should be carefully weighed against the modesty of impact and the complex dynamics of historical trauma. Furthermore, it should be noted that our observations are based on regression models, hence predicting the outcomes and by no means implying a causal relationship between the observed phenomena. Nevertheless, we are merely discussing potential effects, which should, of course, be experimentally proven in further research attempts.

5.1 Limitations

Research into war traumatisation is a challenge because of the complex interplay of personal, historical and cultural factors that characterise the processing and memory of these experiences. This includes understanding how these experiences, which are influenced by the socio-political environment and community narratives, are internalised and transmitted across generations.

A key limitation to our current research is the challenge of distinguishing the specific effects of war traumatisation from the broader spectrum of cumulative adversity. It would be important to understand how war-related traumas are internalised and the impact they have on ethnic relations, especially as they can have different implications compared to other adversities. Therefore, future studies should aim to isolate the specific effects of war-related trauma from other adverse experiences to improve understanding of the unique contributions to autonomic dysregulation, mental well-being, and interethnic dynamics.

In addition, a specific measurement tool needs to be developed, tailored to assess war traumatisation in the general population decades after conflict, similar to that used with veterans (e.g., Keane et al. 1988). While there are currently established instruments for assessing PTSD in military veterans, there is a gap in instruments suitable for non-military populations who continue to experience the effects of war trauma long after the end of the conflict. The development of such tools would address this gap and enable a more accurate assessment of the long-term impact of war-related adversity on the affected populations.

Additionally, in future research, we must also focus on resilience – how people bounce back after traumatic events. Emphasising resilience would enrich understanding of the mechanisms that enable individuals to recover and succeed despite facing significant adversity in the past. Furthermore, future studies could include additional groups, such as Serbs, to provide a more comprehensive understanding of interethnic relationships in the region.

We also acknowledge the relatively small sample size that our conclusions are based on. Due to several resource limitations, we were unable to provide a larger sample size, which might have resulted in different outcomes should more comprehensive models have been tested. Our realized sample size only allowed

us to account for medium effect sizes of the tested mediation models with bootstrapping on a power level of 0.80 (Fritz & MacKinnon 2007). Nevertheless, we believe that our findings, albeit modestly featured, can still steer us in a promising direction for further research in the field.

6. Conclusion

Our study addressed the complex interplay between previous adversity, physiological responses, socio-psychological outcomes, mental well-being, and ethnic distance, in a post-conflict setting. The study shows that the effects of previous adversity on mental well-being and interethnic attitudes are multifaceted, with previous adversity being linked to autonomic reactivity and body awareness. The findings also show that body awareness and autonomic reactivity serve as mechanisms linking past traumatisation and both mental well-being and ethnic distance.

Our findings suggest potential pathways for developing interventions aimed at modulating physiological responses to indirectly reduce ethnic distance, particularly in post-conflict settings. While the observed effects were modest, and in some cases only marginally significant, they provide an initial indication that improving body awareness and autonomic reactivity could help to reduce ethnic tensions and improve mental well-being. Given the preliminary nature of these results, further research is needed to substantiate these findings and refine approaches for interventions. It is important to acknowledge that while our study may point in a promising direction for trauma-informed interventions, the actual impact in post-conflict situations should be evaluated with caution because of the small magnitude of the observed effects.

By tentatively exploring these relationships, our research paves the way for future studies to further investigate how physiological interventions can promote reconciliation and healing within communities. This approach could add a new dimension to peacebuilding programmes, especially in environments where autonomic dysregulation is widespread.

References

Baron, R. & Kenny, D., 1986. The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology* 51 (6), 1173–1182, doi: https://doi.org/10.1037/0022-3514.51.6.1173

Bar-Tal, D., Chernyak-Hai, L., Schori, N. & Gundar, A., 2009. A Sense of Self–perceived Collective Victimhood in Intractable Conflict. *International Review of the Red Cross* 91 (874), 229–258, doi:10.1017/S1816383109990221

Bayar, T., 2023. The Sheep That God Lost: 'Legally' Circumventing the Human Rights of Undocumented Migrants. *Southeast European and Black Sea Studies*, 1–19, doi: https://doi.org/10.1080/14683857.2023.2255022

DOI:10.2478/tdjes-2024-0008

Blanco, A., Blanco, R. & Diaz, D., 2016. Social (Dis)Order and Psychosocial Trauma: Look Earlier, Look Outside, and Look Beyond the Persons. *American Psychologist* 71 (3), 187–198, doi: https://doi.org/10.1037/a0040100

Bogardus, E. S., 1925. Measuring Social Distance. *Journal of Applied Sociology* 9, 299–308.

Brett, R., English, R., Féron, É. & Rosoux, V., 2024. Embodied Reconciliation: A New Research Agenda. *Peacebuilding* 12 (1), 102–119, doi: https://doi.org/10.1080/21647259.2022.2156162

Brom, D., Stokar, Y., Lawi, C., Nuriel-Porat, V., Ziv, Y., Lerner, K. & Ross, G., 2017. Somatic Experiencing for Posttraumatic Stress Disorder: A Randomized Controlled Outcome Study. *Journal of Traumatic Stress* 30 (3), 304–312, doi: 10.1002/jts.22189

Cabrera, A., Kolacz, J., Pailhez, G., Bulbena-Cabre, A., Bulbena, A. & Porges, S. W., 2018. Assessing Body Awareness and Autonomic Reactivity: Factor Structure and Psychometric Properties of the Body Awareness Questionnaire-Short Form (BAQ-SF). *International Journal of Methods in Psychiatric Research* 27 (2), e1596, doi: https://doi.org/10.1002/mpr.1596

Djordjević, A. & Zupančič, R., 2024. 'Undivided' City in a Divided Society: Explaining the Peaceful Coexistence of Albanians and Serbs in Kamenicë/Kamenica, Kosovo. *Southeast European and Black Sea Studies*, 1–19, doi: https://doi.org/10.1080/14683857.2024.2324550

Džuverović, N., 2018. Why Local Voices Matter: Participation of Local Researchers in the Liberal Peace Debate. *Peacebuilding* 6 (2), 111–126, doi: https://doi.org/10.1080/21647259.2018.1449186

Engel, G. L., 1977. The Need for a New Medical Model: A Challenge for Biomedicine. *Science* 196 (4286), 129–136, doi: 10.1126/science.847460

Frewen, P. & Lanius, R., 2015. *Healing the Traumatized Self: Consciousness, Neuroscience, and Treatment.* WW Norton & Company, New York.

Fritz, M. S. & MacKinnon, D. P., 2007. Required Sample Size to Detect the Mediated Effect. *Psychological Science* 18 (3), 233–239, doi: 10.1111/j.1467-9280.2007.01882.x

Grabbe, L. & Miller-Karas, E., 2018. The Trauma Resiliency Model: A "Bottom-up" Intervention for Trauma Psychotherapy. *Journal of the American Psychiatric Nurses Association* 24 (1), 76–84, doi: https://doi.org/10.1177/1078390317745133

Hirschberger, G., 2018. Collective Trauma and the Social Construction of Meaning. *Frontiers in Psychology* 9, 1441, doi: https://doi.org/10.3389%2Ffpsyg.2018.01441

Hlavac, M., 2022. *stargazer: Well-Formatted Regression and Summary Statistics Tables* (R package), https://sites.google.com/site/marekhlavac/software/stargazer (accessed 11 June 2024).

Imai, K., Keele, L. & Tingley, D., 2010. A General Approach to Causal Mediation Analysis. *Psychological Methods* 15 (4), 309, doi: 10.1037/a0020761

Jokić, B., Purić, D., Grassmann, H., Walling, C. G., Nix, E. J., Porges, S. W. & Kolacz, J., 2023. Association of Childhood Maltreatment with Adult Body Awareness and Autonomic Reactivity: The Moderating Effect of Practicing Body Psychotherapy. *Psychotherapy* 60 (2), 159–170, doi: 10.1037/pst0000463

Keane, T. M., Caddell, J. M. & Taylor, K. L., 1988. Mississippi Scale for Combat-Related Posttraumatic Stress Disorder: Three Studies in Reliability and Validity. *Journal of Consulting and Clinical Psychology* 56 (1), 85–90, doi: 10.1037//0022-006x.56.1.85

Kearney, B. E. & Lanius, R. A., 2022. The Brain-Body Disconnect: A Somatic Sensory Basis for Trauma-Related Disorders. *Frontiers in Neuroscience* 16, 1015749, doi: 10.3389/fnins.2022.1015749

Keyes, C. L., 2002. The Mental Health Continuum: From Languishing to Flourishing in Life. *Journal of Health and Social Behavior* 43 (2), 207–222.

Kočan, F., Vuga Beršnak, J. & Zupančič, R., 2024. When Structural Factors That Cause Interethnic Violence Work in Favour of Peace: The Story of Baljvine, a Warless Bosnian-Herzegovinian Peace Mosaic. *Journal of International Relations & Development*, doi: 10.1057/s41268-024-00331-8

Kočan, F. & Zupančič, R., 2024. Capturing Post-Conflict Anxieties: Towards an Analytical Framework. *Peacebuilding* 12 (1), 120–138, doi: https://doi.org/10.1080/21647259.2023.2184116

Kolacz, J., Dale, L. P., Nix, E. J., Roath, O. K., Lewis, G. F. & Porges, S. W., 2020a. Adversity History Predicts Self-Reported Autonomic Reactivity and Mental Health in US Residents during the COVID-19 Pandemic. *Frontiers in Psychiatry* 11, 577728, 10.3389/fpsyt.2020.577728

Kolacz, J., Hu, Y., Gesselman, A. N., Garcia, J. R., Lewis, G. F. & Porges, S. W., 2020b. Sexual Function in Adults with a History of Childhood Maltreatment: Mediating Effects of Self-Reported Autonomic Reactivity. *Psychological Trauma: Theory, Research, Practice, and Policy* 12 (3), 281–290, doi: https://doi.org/10.1037/tra0000498

Kuhar, M. & Zager Kocjan, G., 2021. Associations of Adverse and Positive Childhood Experiences with Adult Physical and Mental Health and Risk Behaviours in Slovenia. *European Journal of Psychotraumatology* 12 (1), 1924953, doi: 10.1080/20008198.2021.1924953

Kuhar, M., Bolko, I. & Zupančič, R., 2023. Trauma-informed Approach for Bridging Ethnic Distance in Post-Conflict Societies: A Pilot Study and Intervention Evaluation. *Advances in Methodology and Statistics* 20 (1), 57–75, doi: https://doi.org/10.51936/dswp1546

Kuhfuß, M., Maldei, T., Hetmanek, A. & Baumann, N., 2021. Somatic Experiencing – Effectiveness and Key Factors of a Body-Oriented Trauma Therapy: A Scoping Literature Review. *European Journal of Psychotraumatology* 12 (1), 1929023, doi: 10.1080/20008198.2021.1929023

Lamers, S. M., Westerhof, G. J., Bohlmeijer, E. T., ten Klooster, P. M. & Keyes, C. L., 2011. Evaluating the Psychometric Properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology* 67 (1), 99–110, doi: https://doi.org/10.1002/jclp.20741

Levine, P. A., 1997. *Waking the Tiger: Healing Trauma*. North Atlantic Books, Berkeley, (CA).

Levine, P. A., 2010. *In an Unspoken Voice: How the Body Releases Trauma and Restores Goodness.* North Atlantic Books, Berkeley, (CA).

Levine, P. A., 2015. *Trauma and Memory: Brain and Body in a Search for the Living Past: A Practical Guide for Understanding and Working with Traumatic Memory*. North Atlantic Books, Berkeley, (CA).

López Castaneda, D. & Myrttinen, H., 2022. Looking beyond Rape and War – The Need to Take Violence Prevention Seriously in Women, Peace and Security. *Journal of Regional Security* 17 (1), 49–64, doi: https://doi.org/10.5937/jrs17-33715

Lueke, A. & Gibson, B., 2014. Mindfulness Meditation Reduces Implicit Age and Race Bias. *Social Psychological and Personality Science* 6 (3), 284–291, doi: https://doi.org/10.1177/1948550614559651

Mansfield, K., 2020. Taking Play Seriously: Creative Processing of Trauma Through Expressive Arts. In J. Funk, N. Good & E. M. Berry (eds.) *Healing and Peacebuilding After War: Transforming Trauma in Bosnia and Herzegovina.* Routledge, London.

Mather, D. M., Jones, W. J. & Moats, S., 2017. Improving upon Bogardus: Creating a More Sensitive and Dynamic Social Distance Scale. *Survey Practice* 10 (4).

McCrory, E., De Brito, S. A. & Viding, E., 2011. The Impact of Childhood Maltreatment: A Review of Neurobiological and Genetic Factors. *Frontiers in Psychiatry* 2, 48, doi: 10.3389/fpsyt.2011.00048

Mikac, R., Mitrevska, M. & Smajić, M., 2022. Hybrid Threats and Counter-Hybrid Solutions: A Comparative Case Study Analysis of Croatia, North Macedonia, and Bosnia and Herzegovina. *Politics in Central Europe* 18 (3), https://doi.org/10.2478/pce-2022-0017

Miller, K. E. & Rasmussen, A., 2010. War Exposure, Daily Stressors, and Mental Health in Conflict and Post-Conflict Settings: Bridging the Divide between Trauma-Focused and Psychosocial Frameworks. *Social Science & Medicine* 70 (1), 7–16, doi: 10.1016/j.socscimed.2009.09.029

Močnik, N., 2020. *Trauma Transmission and Sexual Violence: Reconciliation and Peacebuilding in Post-Conflict Settings*. Routledge, London.

Ogden, P., Minton, K. & Pain, C., 2006. *Trauma and the Body: A Sensorimotor Approach to Psychotherapy*. WW Norton & Company, New York.

Parrillo, V. N. & Donoghue, C., 2013. Updating the Bogardus Social Distance Studies: A New National Survey. *The Social Science Journal* 42 (2), 257–271, doi: https://doi.org/10.1016/j.soscij.2005.03.011

Payne, P., Levine, P. A. & Crane-Godreau, M. A., 2015. Somatic Experiencing: Using Interoception and Proprioception as Core Elements of Trauma Therapy. *Frontiers in Psychology* 6 (502), 93, doi: https://doi.org/10.3389%2Ffpsyg.2015.00093

Porges, S. W., 2001. The Polyvagal Theory: Phylogenetic Substrates of a Social Nervous System. *International Journal of Psychophysiology* 42 (2), 123–146, doi: 10.1016/s0167-8760(01)00162-3

Porges, S. W., 2003. The Polyvagal Theory: Phylogenetic Contributions to Social Behavior. *Physiology & Behavior* 79 (3), 503–513, doi: https://doi.org/10.1016/s0031-9384(03)00156-2

Porges, S. W., 2009. The Polyvagal Theory: New Insights into Adaptive Reactions of the Autonomic Nervous System. *Cleveland Clinic Journal of Medicine* 76 (Suppl2), 86–90, doi: https://doi.org/10.3949%2Fccjm.76.s2.17

Porges, S. W., 2011. *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-regulation*. WW Norton & Company, New York.

Porges, S. W., 2017. Vagal Pathways: Portals to Compassion. In S. L. Brown, C. D. Cameron, J. R. Doty, M. E. Seppälä, E. Simon-Thomas & M. C. Worline (eds.) *The Oxford Handbook of Compassion Science.* Oxford University Press, Oxford, 189–202.

Porges, S. W., 2021. *Polyvagal Safety: Attachment, Communication, Self-regulation*. W. W. Norton & Company, New York.

Porges, S. W., 2022. Polyvagal Theory: A Science of Safety. *Frontiers in Integrative Neuroscience* 16, 871227, doi: https://doi.org/10.3389/fnint.2022.871227

Porges, S. W. & Dana, D. A. (eds.), 2018. *Clinical Applications of the Polyvagal Theory: The Emergence of Polyvagal-Informed Therapies*. WW Norton & Company, New York.

Preacher, K. J. & Hayes, A. F., 2004. SPSS and SAS Procedures for Estimating Indirect Effects in Simple Mediation Models. *Behavior Research Methods, Instruments & Computers* 36, 717–731, doi: https://doi.org/10.3758/BF03206553

Rothschild, B., 2000. *The Body Remembers: The Psychophysiology of Trauma and Trauma Treatment*. WW Norton & Company, New York.

Ryff, C. D., 1989. Happiness Is Everything, or Is It? Explorations on the Meaning of Psychological Well-Being. *Journal of Personality and Social Psychology* 57 (6), 1069–1081, doi: https://doi.org/10.1037/0022-3514.57.6.1069

Ryff, C. D. & Keyes, C. L. M., 1995. The Structure of Psychological Well-Being Revisited. *Journal of Personality and Social Psychology* 69 (4), 719–727, doi: https://doi.org/10.1037//0022-3514.69.4.719

Schore, N. A., 1994. *Affect Regulation and the Origin of the Self: The Neurobiology of Emotional Development*. Routledge, London.

Schore, N. A., 2019. *The Development of the Unconscious Mind*. W. W. Norton & Company, New York.

Seligman, M. E. P. & Csikszentmihalyi, M., 2000. Positive Psychology: An Introduction. *American Psychologist* 55 (1), 5–14, doi: 10.1037/0003-066X.55.1.5

Solymari, D. & Gibarti, S., 2023. Migration Motivation and Psychosocial Issues of Internally Displaced People: A Close-up from Homs, Syria. *Journal of Regional Security* 18 (1), 97–120, doi: 10.5937/jrs18-40300

Storbeck, J. & Clore, G. L., 2008. Affective Arousal as Information: How Affective Arousal Influences Judgments, Learning, and Memory. *Social and Personality Psychology Compass* 2 (5), 1824–1843, doi: https://doi.org/10.1111/j.1751-9004.2008.00138.x

Sukhera, J. & Watling, C., 2018. A Framework for Integrating Implicit Bias Recognition into Health Professions Education. *Academic Medicine* 93 (1), 35–40, doi: https://doi.org/10.1097/acm.0000000000001819

Tan, Siang & Yip, A., 2018. Hans Selye (1907–1982): The Founder of the Stress Theory. *Singapore Medical Journal* 59 (4), 170–171, doi: 10.11622/smedj.2018043

Tingley, D., Yamamoto, T., Hirose, K., Keele, L. & Imai, K., 2014. Mediation: R Package for Causal Mediation Analysis. *Journal of Statistical Software* 59 (5), 1–38, https://imai.fas.harvard.edu/research/files/mediationR2.pdf (accessed 11 June 2024).

Toroš, A., 2021. Minority Literature and Collective Trauma: The Case of Slovene Triestine Literature. *Treatises and Documents /Razprave in Gradivo* 86, 65–81, doi: https://doi.org/10.36144/rig86.jun21.65-81

van der Kolk, B., 2014. *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma*. Penguin Books, New York.

Volkan, V. D., 2001. Transgenerational Transmissions and Chosen Traumas: An Aspect of Large-Group Identity. *Group Analysis* 34 (1), 79–97, doi: 10.1177/05333160122077730

Wark, C. & Galliher, J. F., 2007. Emory Bogardus and the Origins of the Social Distance Scale. *The American Sociologist* 38 (4), 383–395, doi: https://doi.org/10.1007/s12108-007-9023-9

Wessels, M. G., 2007. Post-Conflict Healing and Reconstruction for Peace: The Power of Social Mobilization. In J. D. White & A. J. Marsella (eds.) Fear of Persecution: Global Human Rights, International Law, and Human Well-Being. Lexington Books/Rowman & Littlefield, Lanham, (MD).

Wirth, L., 2022. The Backpack of a Carinthian Slovene – Transmission of Transgenerational Trauma in Slovenes in Carinthia/Koroška. *Treatises and Documents/Razprave in Gradivo* 89, 159–177, doi: https://doi.org/10.36144/rig89.dec22.159-177

Zupančič, R., 2019. EU Peace-Building in the North of Kosovo and Psychosocial Implications for the Locals: A Bottom Up Perspective on Normative Power Europe. *Journal of Balkan and Near Eastern Studies* 21 (5), 576–593, doi: https://doi.org/10.1080/19448953.2018.1504379

Zupančič, R., Kočan, F. & Vuga, J., 2021. Ethnic Distancing through Aesthetics in Bosnia-Herzegovina: Appraising the Limits of Art As a Peacebuilding Tool with a Socio-Psychological Experiment. *Southeast European and Black Sea Studies* 21 (1), 101–123, doi: https://doi.org/10.1080/14683857.2020.1867410

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