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## Roles in violent interactions in early adolescence: Relations with personality traits, friendship and gender

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The aim of this study is to examine the relations between roles in violent interactions and personality traits (congruent to dimensions of Big Seven lexical model), number of friends, and gender. The study was conducted on a sample of 1095 elementary school students from Serbia (51.4% female), aged 11–14. The results revealed that membership in the victims group corresponds to smaller number of friends, low Extraversion, high Neuroticism and Conscientiousness and male gender, while higher Aggressiveness, Negative and Positive Valence, lower Neuroticism, and male gender increase the odds of membership in the bullies group. The role of bully-victims corresponds to smaller number of friends, higher Negative Valence and Neuroticism, and male gender. The results point to differences between roles in violent interaction with regard to patterns of personality traits and social behavior.

*Keywords:* bullying, early adolescence, Big Five Plus Two, friendship, gender differences

Bullying is a phenomenon which attracts a considerable attention of researchers, primarily due to consequences which victimization by peers has on children's mental health and development. In order to prevent this phenomenon, studies are focused on identifying the factors which contribute to the emergence and continuation of violent interaction patterns (e.g. Alsaker & Gutzwiller–Helfenfinger, 2010; Andreou, 2000; Boulton & Smith, 1994; Georgiou & Stavrinides, 2008; Schwartz, 2000; Sutton & Keogh, 2000; Whitney & Smith, 1993). Among these factors, the ones that usually stand out are various characteristics of the social environment and of the context, as well as characteristics of the children involved in bullying either as perpetrators or as victims.

Bullying is typically defined as a phenomenon characterized by inequality of power between the bully and the victim, repetitiveness and intentionality of

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the bully's behavior. Therefore, bullying should be explicitly differentiated from participation in aggressive interactions which exhibit a lack of power imbalance (Felix & Greif Green, 2010; Olweus, 2010). The emergence and continuation of bullying is contributed by an interaction of particular contextual factors, social environment factors as well as participants' individual characteristics (Alsaker & Gutzwiller-Helfenfinger, 2010).

In addition to the need to clearly define bullying in research studies, for the sake of being able to adequately interpret their results, the source and type of bullying-related behavioral data also emerge as important methodological issues. The technique of peer nomination, together with self-report, is commonly used in studies for assessing bullying. However, since peer nomination can neither detect certain subtle forms of bullying, nor encompass bullying incidents outside a group, most commonly a class (Olweus, 2010), a well-constructed questionnaire may have advantages over the peer nomination techniques in studies on bullying.

### **Roles in bullying: bully, victims, and bully-victims**

The majority of studies focus on three groups of children who are directly involved in bullying (e.g. Olweus, 1993; Schwarz, 2000): bullies, victims and the group of children who are simultaneously aggressive and victimized, and who are commonly termed bully-victims group – aggressive or provocative victims. In addition to this, a group of children who are not involved in bullying interactions is usually analyzed as a control group. It has been shown that these roles are rather stable in the age group of school children (Salmivalli, Lappalainen, & Lagerspetz, 1998). This stability indicates that the process of taking on these roles is in accordance with personal characteristics of the children involved (Salmivalli et al., 1998).

Bullying behavior is associated with behavioral disorders, ADHD, oppositional defiant disorder, depression disorders, as well as with some neuropsychological deficits (Coolidge, DenBoer, & Segal, 2004). Bullies, among other things, exhibit a lower level of understanding emotions of others (Lomas, Stough, Hansen, & Downey, 2012), a high level of Machiavellianism and an external locus of control (Andreou, 2000). Deficits related to behavioral control and emotional regulation are usually most noticeable in the bully-victim group (Georgiou & Stavrinides, 2008; Toblin, Schwartz, Gorman, & Abou-Ezzeddine, 2005). These children do not perform well in school, are rejected by their peers and exhibit a high level of emotional distress (Schwartz, 2000). Results show that bully-victims display the highest level of both reactive (reaction to a frustration and provocation, related to a poor anger management and to tendency for intentions of other to be interpreted as hostile) and proactive aggression (instrumental behavior aimed at obtaining a reward) among all three groups of children involved in bullying (Salmivalli & Nieminen, 2002). While bullies, as it seems, possess a wider repertoire of aggressive behaviors and while their behavior is controlled to a higher degree, bully-victims display

primarily physical aggression and dysregulated behavior. On the one hand, this increases the risk of such children becoming victims of systematic bullying and, on the other hand, it also decreases other children's motivation of standing up in defense of such a child (Alsaker & Gutzwiller–Helfenfinger, 2010). The bully and the bully–victim both exhibit a high level of Machiavellianism (Andreou, 2000; Sutton & Keogh, 2000) and are inclined to make external attributions regarding bullying incidents (Georgiou & Stavrinides, 2008). Data show that victims are submissive, withdrawn and exhibit a lower degree of prosocial behavior (Schwartz, 2000), as well as a lower level of emotional control and emotional management skills (Lomas et al., 2012).

Studies suggest that all three groups of children involved in bullying are less prosocial than children who do not get involved in bullying (Schwartz, 2000). It is also possible to note a trend of a moderate decrease in prosocial behavior with an increase in age (Alsaker & Gutzwiller–Helfenfinger, 2010). Nonetheless, a lack of longitudinal studies does not allow one to draw a conclusion about causal relationships: if this decrease in prosocial behavior is a consequence of victimization or if victims' less prosocial behavior is one of the factors contributing to victimization (Alsaker & Gutzwiller–Helfenfinger, 2010).

### **Personality traits of children involved in bullying**

In terms of personality traits, the subsequent studies have mostly used the Big Five model as their conceptual framework. It has been shown that the most consistent predictors of a role in bullying are Agreeableness and Neuroticism. Both bullies and victims are characterized by decreased Agreeableness and increased Neuroticism.

Bullies score higher on Extraversion (Tani, Greenman, Schneider, & Fregoso, 2003). In addition to an increased level of aggression, the bullies have a tendency to exhibit an increased level of sociability, but they are also characterized by a highly pronounced self–evaluation and by a presence of manipulative behavior. These characteristics of bullies seem to suggest that their patterns of social behavior are aimed at winning and maintaining a position of power. Among all factors of the Big Five model, Agreeableness is most linked to aggression in adolescence and aggression–related cognitions (Gleason, Jensen–Campbell, & South Richardson, 2004), as well as to processes and outcomes of peer relations among children and to lessening of victimization (Jensen–Campbell et al., 2002). The study by Kodžopeljić, Smederevac, Mitrović, Dinić, & Čolović (2014), which used a questionnaire in order to assess seven lexical dimensions identified in the Serbian language, seems to indicate that Victims are characterized by a lowered Extraversion and increased Neuroticism. These characteristics of Victims may make them easy targets for aggression. Both victims and bullies are characterized by an increased neuroticism (Maynard & Joseph, 1997), while bullies are also characterized by an increased positive affectivity (Craig & Pepler, 1998).

### **Social behavior of children involved in bullying**

Studies of social behavior suggest that passive victims are submissive and withdrawn (Schwartz, 2000), shy and insecure in social situations (Perren & Alsaker, 2006), but it still remains unclear whether these characteristics are a risk factor for or an effect of victimization (Alsaker & Gutzwiller–Helfenfinger, 2010). It seems that both types of victims, passive and aggressive or bully-victims, display a lack of effective non-aggressive assertive behavior (Perren & Alsaker, 2006; Schwartz, 2000; Toblin et al., 2005), while bully-victims and bullies differ in respect to their ability of controlling physical aggression and to the degree of understanding of social relations. The abilities to control aggression and to understand social norms and situations makes bullies effective aggressors, while the lack of these abilities makes bully-victims ineffective aggressors (Alsaker & Gutzwiller–Helfenfinger, 2010).

Friendships are very important for children's development, among other things exactly because they make it possible for children to acquire basic social skills. In the context of bullying, friendships represent a protective factor for children at risk of victimization (Alsaker & Gutzwiller–Helfenfinger, 2010). On the one hand, friendships are important because of the social network which provides protection to a potential victim, and, on the other hand, they make it possible for a child to develop social skills whose acquisition makes it less vulnerable to victimization. The importance of the number of friends is also highlighted by the finding that the effects of a brutal family environment in the early childhood are only visible in children who are socially isolated, but not in children who have a bigger number of friendships (Schwartz, Dodge, Pettit, & Bates, 2000). Most studies suggest that victims, just like bully-victims, are rejected by their peers (Boulton & Smith, 1994; Cook, Williams, Guerra, Kim, & Sadek, 2010; Perren & Alsaker, 2006), while bullies are popular (Whitney & Smith, 1993). Lack of friends among victims could be a consequence of their behavior, but it is equally possible that other children avoid hanging out with them in order not to become targets of bullies themselves (Alsaker & Gutzwiller–Helfenfinger, 2010). Bullies have developed leadership skills and belong to bigger social clusters (Perren & Alsaker, 2006), often team up with other violent children (Pellegrini, Bartini, & Brooks, 1999), which may lead to an increase in instances of bullying behavior (Perren & Alsaker, 2006). The number of positive friendship choices a child scores in a group is a greater protective factor against child victimization than the number of mutual friendship choices (Pellegrini et al., 1999).

It has also been shown that the rate of bullying decreases with age, which is usually linked to an increase in social skills which leads to a change in conflict resolution patterns. Bullying peaks between the age of 9 and 15 (Griffin & Gross, 2004).

Meta-analysis by Cook et al. (2010) suggested that all three roles have certain common predictors, including family atmosphere, school climate and other environmental factors. Additionally, boys are involved in bullying, in all three roles, significantly more than girls. Bullies and bully-victims exhibit poor academic performance in school, which is not the case with victims. Negative convictions about others also constitute an important predictor for the roles of

bullies and bully–victims, but not for the role of victims, who are characterized by negative convictions about self. Bully–victims have the lowest status in the peer group. Bullies are socially more competent than victims and particularly more competent than bully–victims. Consequently, difficulties in developing and maintaining satisfactory interpersonal relations represent an important characteristic of victimized children. A typical bully displays externalizing behavior, is socially competent but academically unsuccessful, has negative opinions and convictions about others and is under a negative influence of their peers, while a typical victim displays internalizing symptoms, has no adequate social competences, perceives themselves negatively and is rejected by their peers. Bully–victims display a particular combination of bully characteristics and victim characteristics: comorbidity of externalized and internalized problems, negative perception of self and others, poor social skills and rejection by the peer group, but at the same time also a negative influence of the peers that they are interacting with (Cook et al., 2010).

### **Gender and bullying**

It has been consistently proven that boys are involved in bullying more than girls, both as bullies and as victims (Craig & Pepler, 1998; Espelage, Holt, & Henkel, 2003; Felix & Greif Green, 2010). However, some authors have been pointing at a possibility of boys and girls being involved in different forms of bullying. This train of reasoning has led to the inclusion of relational aggression (indirect victimization which involves causing harm to other people by spreading rumors, lies and by declining to be friends with other people) into research studies, based on the assumption that relational aggression is more common among girls (Crick & Grotpeter, 1995; Felix & Greif Green, 2010). On the other hand, Olweus (2010) thinks that previous studies of gender differences, which have shown that boys and girls are equally aggressive if indirect forms of aggression are also taken into consideration, have actually shown the typical forms of expressing anger rather than the actual incidence of this type of behavior in each gender. His findings suggest that boys are, after all, bullies much more frequently than girls, while the differences “in favor” of boys are bigger in the domain of direct aggression, although they are to be found also in the domain of indirect aggression.

### **Implications for current study**

So far, most studies of bullying behavior have been focused on a few particular predictors of bullying, or on predictors of a particular type. Taking into account that this phenomenon is influenced by numerous factors, this study is an attempt to examine of both personal and social characteristics of children involved in bullying, as well as their other features (such as gender and age, or academic performance). At the same time, it is important to examine the effects of these predictors taken together, since there is a possibility that bivariate relations may differ from predictors’ partial contributions, a.k.a. contributions of each predictor when other predictors are controlled for. For this reason, this study is focused on several different kinds of predictors. It is targeted at

examining relations among a tendency to take on a particular role in bullying, on the one hand, and personality traits, academic performance in school, number of friends, gender and age, i.e. school class, on the other hand. This study uses predictors which include personal and demographic characteristics, as well as relevant social behavior characteristics. The first use of seven-factor model of personality in this field of research, including dimensions of self-evaluation – Positive valence and Negative valence, should provide more thorough insight into impact of personality factors on taking part in violent interactions.

## Method

### Participants and procedure

The study comprised 1095 elementary school pupils: 48.6% (532) male and 51.4% (563) female. Pupils were from 12 elementary schools. Approximately one third of pupils (355, 32.4%) were from schools in urban areas (Novi Sad, Sombor, Sremska Mitrovica), and the rest were from schools in smaller towns (Bačka Palanka, Zmajevo, Gajdobra, Bačko Dobro Polje, Obrovac). Pupils were from the 5<sup>th</sup> class (22.4%; about the age of 11), 6<sup>th</sup> class (31.7%; about the age of 12), 7<sup>th</sup> class (30.6%; about the age of 13), and the 8<sup>th</sup> class (15.3%; about the age of 14). Males and females were equally represented in each of the four classes ( $\chi^2_{(3)} = 3.20, p = .36$ ). Examinations in schools were conducted with the approval of school headmasters and teachers. Trained MA students visited the classes during class-meeting time and administered the questionnaires to pupils in the presence of their class teacher. The classes were chosen randomly and number of tested classes per school was in accordance with the size of school. Written positive consent was obtained from each pupil, as well as from his/her parent/caregiver. Pupils were informed about the aim of the study and then filled in the questionnaires. No pupils declined to participate in the study. All questionnaires were completed anonymously and no personal information was required. At the end, a debriefing was organized for pupils, along with the information about who they should contact in case they had any questions about the study, or in case they encountered difficulties or problems related to violence in school.

### Measures

**Bullying.** Peer Violence Questionnaire (PVQ: Čolović, Kodžopeljić, & Nikolašević, 2014) consisted of 20 items with a 3-point response scale: *never*, *sometimes*, and *often*. PVQ refers to different forms of violence, such as physical, verbal and psychological/emotional violence. This questionnaire comprises two scales – Bullying (10 items), measuring tendency towards violent behavior (e.g. “I am the first to hit other pupils in school on purpose.”), and Victimization (10 items), measuring exposure to peer violence (e.g. “Some children tease me”). Cronbach’s Alpha for the Bullying scale was .86, and for the Victimization scale .85.

**Personality.** Big Five Plus Two – junior (BF+2 – junior: Smederevac, Mitrović, & Čolović, 2010) is a 70-item measure of seven lexical personality dimensions in the Serbian language. BF+2 is based on a psycho-lexical study which was conducted using Tellegen and Waller’s non-restrictive methodology for the selection of personality descriptors (Waller, 1999). The items were designed as simple statements in accordance with dictionary definitions, with a 3-point response scale: *no*, *I’m not sure*, and *yes*. The instrument comprises seven 10-item scales: Extraversion ( $\alpha = .65$ ), which refers to positive affect, sociability, warmth and spontaneity in relations to others; Neuroticism ( $\alpha = .75$ ), which implies individual differences in the tendency to experience concern, dissatisfaction, sorrow and other negative emotions; Conscientiousness ( $\alpha = .72$ ), which refers to the level of self-organization, perseverance and self-discipline; Aggressiveness ( $\alpha = .75$ ), which implies a high frequency of experiencing anger

and a tendency to display anger in relationships with others; Openness ( $\alpha = .69$ ), which involves curiosity and a need for new experiences; Positive Valences ( $\alpha = .69$ ), which refers to a high level of self-evaluation, but also to narcissistic tendencies; and Negative Valence ( $\alpha = .66$ ), which represents the assessment of self as a less valuable person with negative characteristics, prone to manipulation, lying and to other forms of socially undesirable behaviors.

**School achievement.** Academic achievement in school was represented as the average grade in the first semester, expressed as one of the five school grade values (from 1 – *F or failed* to 5 – *A or excellent*). Average school grade was 4.15 (SD = .92).

**Number of friends.** The number of friends was measured using a question about the number of close friends and the following response scale was used: 1 – *none*, 2 – *one*, 3 – *two or three*, 4 – *more than three*. Median was 4, with .3% students responding with “none”, 3.1% with “one”, 17.5% with “two or three”, and 79.1% with “more than three”.

## Results

Descriptive statistics were calculated using the “psych” package in R (Revelle, 2014). Descriptive statistics suggest that distributions of scores on BF+2 scales do not deviate substantially from normality. Bivariate correlations between personality traits are low to moderate. Bullying correlates moderately and positively with Aggressiveness and Negative Valence, and modestly with other BF+2 dimensions, except Extraversion and Openness. Victimization correlates modestly with all personality traits, except Openness.

Table 1  
*Descriptive statistics for continuous variables and bivariate correlations*

	A	E	N	C	O	PV	NV	Bullying	Victimization	№ friends	School achievement	Class
E	-.17**											
N	.22**	-.37**										
C	-.41**	.31**	-.27**									
O	-.11*	.39**	-.12**	.29**								
PV	.17**	.43**	-.13**	.10*	.28**							
NV	.52**	-.28**	.41**	-.52**	-.13**	.11*						
Bullying	.44**	-.09	.11*	-.27**	-.01	.22**	.50**					
Victimization	.11*	-.29**	.39**	-.11*	.00	-.12**	.24**	.30**				
№ friends <sup>1</sup>	-.18**	.31**	-.21**	.10*	.05	.06**	-.11*	-.13**	-.26**			
School achievement	-.13**	.19**	-.31**	.15**	.24**	.03	-.26**	-.14**	-.15**	.03**		
Class <sup>1</sup>	.17**	-.02**	-.01**	-.15**	-.02**	.06**	.11**	.10**	-.08**	-.02**	-.11**	
Gender <sup>2</sup>	-.04	.12**	.07	.08	.00	-.07	-.15**	-.43**	-.16**	-.09*	.18**	.06
M	17.48	26.16	16.37	23.90	26.08	21.13	14.09	18.84	13.45			
SD	4.34	2.93	4.00	3.80	3.20	3.22	3.02	3.12	2.66			
Skewness	.29	-1.01	.51	-.59	-1.03	-.01	.82	.98	.88			
Kurtosis	-.54	1.09	-.29	-.07	.98	-.01	.44	.54	.28			

*Note.* A – Aggressiveness; E – Extraversion; N – Neuroticism; C – Conscientiousness; O – Openness; PV – Positive Valence; NV – Negative Valence. <sup>1</sup> Polyserial correlations with continuous variables, polychoric correlations with incontinuous variables. <sup>2</sup> Biserial correlations with continuous variables, polychoric correlations with incontinuous variables. \*  $p < .05$ ; \*\*  $p < .01$  (p values corrected for multiple tests).

Multinomial logistic regression was applied in order to examine the relations between bullying (violent interactions) and the set of predictors (including personality traits, school achievement, number of friends, and class). The criterion variable was the involvement in violent interactions, with four categories: neither bullies nor victims (reference category), bullies, victims, and bully–victims. The participants were classified into categories on the basis of their  $z$ -scores on the scales of the PVQ questionnaire – Bullying and Victimization. The participants whose  $z$ -scores were lower than 1 on both scales were designated as being neither bullies nor victims (73.1%), participants who scored above 1 on Bullying but below 1 on Victimization were classified as bullies (13.3%), participants who scored above 1 on Victimization and below 1 on Bullying were classified as victims (8.2%), and participants with  $z$ -scores above 1 on both scales were categorized as bully–victims (5.4%). Although the treatment of the criterion variable as continuous could provide more precise information on subtle manifestations of bullying and victimization, the concept of roles in violent interaction implies discrete patterns of behavior, which are properly measured only by categorical variables. This study's approach to the roles in violent interaction is congruent with approaches adopted in the studies of Salmivalli et al. (Salmivalli, Lagerspetz, Björqvist, Osterman, & Kaukiainen, 1996) and Flashpoler et al. (Flashpoler, Elfstrom, Vanderzee, Sink, & Birchmeier, 2009), which also used categorization based on continuous variables. Taking into account measurement levels of predictors and criterion, multinomial logistic regression was chosen as the most appropriate method (Tabachnick & Fidell, 2001).

The overall model is statistically significant ( $\chi^2_{(39)} = 482.79, p = .00$ ) with pseudo  $R^2$  ranging from .26 (McFadden) to .43 (Nagelkerke). The results (Table 1) suggest that the likelihood of assuming the victim role is increased by (high scores on) Neuroticism, Openness and Conscientiousness, and decreased by Extraversion and the number of friends. The probability of becoming a victim is also increased by being of male gender. Aggressiveness, Negative valence, Positive valence and male gender increase the likelihood of bullying, while Neuroticism decreases it. Negative valence, Neuroticism, and male gender increased the likelihood of being a bully–victim, while that likelihood is decreased by the number of friends.

Table 2  
Multinomial logistic regression predicting role in violence interaction

	<i>B</i>	<i>SE</i>	Wald	<i>df</i>	Exp( <i>B</i> )	95% CI for Exp( <i>B</i> )	
						Lower Bound	Upper Bound
<b>Victims</b>							
Intercept	-4.14	2.12	3.81	1			
School achievement	-0.11	0.13	0.62	1	0.90	0.69	1.17
Number of friends	-0.47*	0.20	5.41	1	0.62	0.42	0.93
Aggressiveness	-0.01	0.04	0.10	1	0.99	0.92	1.06
Extraversion	-0.14**	0.05	8.98	1	0.87	0.79	0.95
Negative Valence	-0.05	0.06	0.76	1	0.95	0.85	1.07
Neuroticism	0.23***	0.04	39.84	1	1.26	1.17	1.36
Openness	0.09*	0.04	4.50	1	1.09	1.01	1.19
Positive Valence	-0.04	0.04	0.75	1	0.96	0.88	1.05
Consciousness	0.09*	0.04	4.85	1	1.09	1.01	1.18
[gender = boys]	0.69**	0.26	7.51	1	2.01	1.22	3.32
[class = 5]	0.58	0.49	1.39	1	1.79	0.68	4.71
[class = 6]	0.67	0.46	2.13	1	1.96	0.79	4.84
[class = 7]	0.69	0.47	2.19	1	1.99	0.80	4.98
<b>Bully</b>							
Intercept	-11.16	2.04	29.83	1			
School achievement	0.08	0.12	0.38	1	1.08	0.85	1.37
Number of friends	-0.32	0.22	2.13	1	0.72	0.47	1.12
Aggressiveness	0.20***	0.03	42.21	1	1.22	1.15	1.29
Extraversion	0.02	0.05	0.22	1	1.02	0.93	1.13
Negative Valence	0.26***	0.05	30.07	1	1.29	1.18	1.42
Neuroticism	-0.08*	0.03	6.01	1	0.92	0.86	0.98
Openness	-0.02	0.04	0.34	1	0.98	0.91	1.06
Positive Valence	0.12**	0.04	9.57	1	1.13	1.05	1.22
Consciousness	0.01	0.04	0.06	1	1.01	0.94	1.08
[gender = boys]	2.05***	0.26	61.30	1	7.78	4.66	13.00
[class = 5]	-0.18	0.35	0.25	1	0.84	0.42	1.68
[class = 6]	-0.46	0.32	1.99	1	0.63	0.34	1.19
[class = 7]	-0.18	0.31	0.31	1	0.84	0.45	1.55
<b>Bully-victims</b>							
Intercept	-9.84	2.49	15.59	1			
School achievement	-0.05	0.15	0.12	1	0.95	0.71	1.27
Number of friends	-0.65**	0.25	7.06	1	0.52	0.32	0.84
Aggressiveness	0.05	0.04	1.63	1	1.06	0.97	1.15
Extraversion	-0.08	0.06	1.82	1	0.92	0.82	1.04
Negative Valence	0.26***	0.06	17.28	1	1.29	1.15	1.46
Neuroticism	0.12**	0.04	8.22	1	1.13	1.04	1.23
Openness	0.06	0.05	1.39	1	1.06	0.96	1.17
Positive Valence	0.02	0.05	0.08	1	1.02	0.92	1.13
Consciousness	0.05	0.05	1.03	1	1.05	0.96	1.15
[gender = boys]	1.41***	0.33	18.34	1	4.10	2.15	7.83
[class = 5]	1.19	0.68	3.07	1	3.31	0.87	12.63
[class = 6]	1.19	0.65	3.34	1	3.30	0.92	11.89
[class = 7]	1.27	0.65	3.78	1	3.56	0.99	12.77

\*  $p < .01$ ; \*\*  $p < .001$ ; \*\*\*  $p < .0001$ .

## Discussion

The aim of this study was to determine the correlates of behavioral patterns characterizing different roles taken on by participants in violent interactions in higher classes of elementary schools. The analyses have shown that the likelihood of taking on a particular role in the violent interaction (bullies, victims or bully–victims) is determined by different predictors, when compared to the reference group of adolescents who do not take part in school violence.

The set of predictors that increase the likelihood of an adolescent participating in a violent interaction by taking on the *victim role*, includes Neuroticism, Openness to experience and Conscientiousness, while Extraversion and number of friends decrease the likelihood. Male gender also increases the likelihood of taking on the *victim role*. Among the aforementioned variables, the strongest predictors of becoming a victim are Neuroticism, Extraversion and being of male gender, while Conscientiousness, Openness to experience and the number of friends predict the criterion *victim* to a lesser degree. In other words, more introverted male adolescents who are also less emotionally stable, more reactive to environmental stimuli, more inclined to express negative affectivity, as well as those who have a small number of friendships developed at school, are more likely to find themselves in the position of a victim. According to our results, victims, being more open to experiences, are characterized by having more different and more diverse interests than the majority of their peers. Additionally, victims also exhibit a somewhat higher level of perseverance and self-discipline in fulfilling their obligations and goals. Similar results regarding higher Neuroticism and lower Extraversion in victims were found in other studies as well (Kodžopeljić et al., 2014; Maynard & Joseph, 1997; Tani et al., 2003). However, positive relation between Conscientiousness and victim role is an intriguing result for several reasons. This result is not in accordance with the finding that victims score low on Conscientiousness (Tani et al., 2003). In addition, the relationship between the victim role and Openness was not found in most of the previous studies. Although the victim role is modestly related to the set of predictors, the combination of slightly increased scores on Conscientiousness and Openness increases the likelihood of becoming a victim in elementary school students. Taking into consideration possible manifestations of these two personality dimensions in early adolescence, it could be said that the risk of victimization is higher in pupils who show a higher degree of diversity from the mainstream, who are more focused on their schoolwork, and who more submissively accept rules of behavior set by the school. It may be important to point out that bivariate correlations of Openness and scores on Bullying and Victimization scales are virtually zero. This result may suggest that the conceptualization of roles in violent interaction as discrete patterns of behavior may have revealed the specific relations between personality dimensions and particular roles in violent interaction, which cannot be identified by observing the relations between continuous measures. In many studies, the number of friendships appears as a protective factor for victimization (Pellegrini et al.,

1999; Perren & Alsaker, 2006; Schwartz et al., 2000). Decreased sociability of potential victims (lower scores on Extraversion) and a smaller number of social connections maintained at school may indicate that victims' social skills are less developed, which consequently makes it more difficult for them to fit in with their peer group (Perren & Alsaker, 2006). On the other hand, a smaller number of peer friendships developed by victims could also be a result of previously experienced peer violence, consequences of which, among other things, also include self-isolation and a tendency to withdraw from social situations. In contrast, a poorly developed network of peer relations provides less or no social support for the victim who is exposed to peer violence.

The likelihood of an adolescent participant in a violent interaction taking on the *bully role* is increased by higher scores on Aggressiveness and Negative Valence, as well as by being of male gender. Higher scores on Aggressiveness (or low on Agreeableness) in adolescent bullies are found in other studies as well (Gleason et al., 2004; Kodžopeljić et al., 2014; Tani et al., 2003). A higher score on Negative Valence seems to suggest that a bully, in addition to the increased aggressiveness, also has a negative self-image, and an inclination to bring the biggest gain for him/herself by displaying manipulative behavior. The results obtained in this study are in accordance with the results of studies which found that bullies score higher on Machiavellianism (Andreou, 2000; Sutton & Keogh, 2000). Although a slightly weaker predictor, Positive Valence is shown to be a significant predictor of the bully role. In addition to a manifested tendency to manipulative behavior toward others, which is characteristic for higher scores on Negative Valence, bullies in their early adolescence also show high self-evaluation combined with the narcissistic tendencies. The importance of the evaluative dimensions of the Seven Factor Model in prediction of roles in violent interaction was highlighted in an earlier study, which applied this model on a sample of secondary school pupils (Kodžopeljić et al., 2014). In accordance with some previous studies (Maynard & Joseph, 1997; Tani et al., 2003), Neuroticism appears not only as a predictor of victimization, but also as a predictor of violent behavior. However, unlike the aforementioned studies, the result of this study is that Neuroticism is somewhat weaker predictor of the bully role, with lower scores on this dimension increasing the likelihood of becoming a bully. In other words, bullies appear to be slightly more emotionally stable in comparison to passive and provocative victims. This, in light of other predictors of the bully role, may mean that the exertion of violence against others occurs rather as a result of an opportunity to demonstrate power and self-perceived superiority, than as a consequence of lower emotional stability and higher responsiveness to environmental stimuli. Being of male gender as a predictor of taking on the bully role is in accordance with the findings of a number of studies (Craig & Pepler, 1998; Espelage et al., 2003).

The category of *bully-victims or provocative victims* is predicted by a combination of predictors of bullies and victims roles. Hence, the likelihood of taking on this role in violent interactions is increased by higher scores on Negative Valence and Neuroticism, as well as by being of male gender, while the

number of friends is negatively related to this outcome. This means that there is a higher probability of taking on the role of a provocative victim in the group of emotionally unstable adolescents who are more reactive to environmental stimuli, who have a negative self-image, also being inclined to be manipulative in social relations, with poorly developed social network at school. Although some studies have found that children and adolescents belonging to this category display the highest level of aggressiveness in comparison to their peers (Perren & Alsaker, 2006; Salmivalli & Nieminen, 2002), Aggressiveness in this study does not turn out to be a significant predictor of this role. It is possible that the aggressiveness displayed by bullies is instrumental in nature, while aggressive behaviors of bully-victims may well be reactive in nature, so that adolescents belonging to the latter category perceive most of their actions in a violent situation only as responses to violent acts of others. The possible reason for the inconsistency in relation to bully-victims' aggressiveness may lie in different techniques applied in order to estimate the aggressiveness of participants in the violent situation. Namely, the findings which identified bully-victims as the most aggressive were obtained by using the peer nomination technique (Perren & Alsaker, 2006, Salmivalli & Nieminen, 2002).

Just as was the case with the *victims*, a small number of friendships established in the school environment constitutes a predictor for the *bully-victim* role. This is in contradiction with the results of some studies that have found that bullies and bully-victims are socially more active than passive victims (Pellegrini et al., 1999). However, considering that the dimension of Extraversion is not a predictor of this role, a poorly developed network of peer relations may actually be an indicator of problems in communication with peers, which emerge more due to a lack of particular social skills than due to a less pronounced sociability. A confirmation for this hypothesis may be found in the studies that have found that bully-victims are generally rejected by their peers (Boulton & Smith, 1994), while bullies are popular (Whitney & Smith, 1993).

As was the case with the two roles in violent interactions that have been previously mentioned, males are more likely to become bully-victims. However, certain caution is necessary before drawing conclusions about members of male gender being more exposed to violent situations. Namely, the PVQ questionnaire items refer more to instances of acts of direct aggression, than to those of relational aggression. Although findings of many studies, including ours, seem to suggest that boys appear more frequently in all three roles – bullies, victims and bully-victims (Craig & Pepler, 1998; Espelage, et al., 2003), a higher degree of victimization of boys becomes questionable when one simultaneously analyzes the position in a violent interaction and the type of violence. It is in line with findings of Crick and Grotpeter (1995), which suggest that girls are more frequently victims of indirect aggression, while boys are more frequently victims of direct, physical and/or verbal aggression. Hence, the possible differences between genders in relation to prevalence of violence in a particular gender may be a consequence of less noticeable and more subtle differences in the manner of exhibiting indirect aggression (Felix & Greif Green, 2010). Therefore, in future

studies of violence, it may be of crucial importance to make clear distinctions among the forms of violence that a bully displays, as well as among the types of victims, in order to answer the question of gender differences in roles in violent interactions.

Results of previous studies on the relations of school achievement and age with violent behavior initiated the inclusion of these variables into the set of predictors in this study. However, school achievement and age did not turn out to be important predictors. It is possible that no clearly noticeable changes in the frequency of bullying take place in the age range covered by our sample (children aged 11–15), particularly so if one bears in mind that it is exactly this age range, when compared to other age ranges, when bullying reaches its peak (Griffin & Gross, 2004). Our study has not confirmed the findings that children who take on any role in violent interactions have lower school achievement than their well-adapted peers (Schwartz, 2000).

### **Conclusion**

In respect to personality dimensions and social skills, it seems that previous studies exhibit a rather high degree of agreement regarding certain traits and predictors of the two main roles in violent interactions (bullies and victims). Conversely, the importance of Aggressiveness (and Agreeableness) for taking on the bully role has been well documented in a great number of studies, as was the importance of Neuroticism for victimization. Victims and bullies clearly differ with respect to the lack of social skills and peer relationships as a means of social support. Results of this study are in accordance with these findings. However, the results suggest that other personality dimensions may emerge as significant predictors of particular roles in violent interaction. Thus, higher scores on Conscientiousness and Openness have been recognized as additional predictors of the victim role. Contribution of evaluative personality dimensions to the prediction of violent behavior and victimization in early adolescents is another important finding of this study.

However, it remains unclear whether the aggressiveness of bully-victims is purely reactive or there are elements of instrumental aggression as well. One can also deem inconclusive the result which identifies the bully-victim group as the most aggressive one in comparison with groups of other roles in a violent interaction. Additionally, there are very few pieces of data which could serve as a basis for clear identification of potential predictors of this role among personality traits. It is very likely that, in contrast to previously delimited bully and victim roles, this is a much more complex role, which is taken on by a much more heterogeneous group of adolescents having a combination of internalized and externalized problems. Further analysis of characteristics and predictors of this role is therefore important if one is to devise a psychological intervention program and a program of psychological support for adolescents whose role in violent interaction can be classified as that of a bully-victim.

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