

## Research Reports

# Relationships Between Individual Endorsement of Aggressive Behaviors and Thoughts With Prejudice Relevant Correlates Among Adolescents

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## Abstract

The current study explored how individual differences in endorsement of aggressive behaviors and thoughts relate to individual levels of tolerance and prejudice toward immigrants and established prejudice correlates such as social dominance orientation (SDO) and ethnic out-groups ratings among adolescents. Participants (N = 141; Age M = 16.08, 68% girls) completed the Readiness for Interpersonal Aggression Inventory, the Tolerance and Prejudice Questionnaire, and measures of SDO and ethnic out-groups ratings. Results indicated that higher individual endorsement of aggression was related to higher prejudice and SDO and lower tolerance and ethnic out-groups ratings. Patterns of endorsement of aggression related to habitual and socially determined aggressive acts or stable needs to hurt others as a source of satisfaction were significantly correlated with prejudice. Conversely, the relationship between prejudice and endorsement of impulsive actions lacking of emotional control resulted was less marked. The results highlight how in the cognitive spectrum of prejudice, individual levels of endorsement of aggression may play a significant triggering role during adolescence. These findings may have implications for future studies and interventions aimed at reducing prejudice already in young ages.

**Keywords:** endorsement of aggression, prejudice, SDO, adolescence, ethnic out-groups

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Episodes of discrimination and violence towards any ethnic or immigrant groups, often perceived as “out-groups” by the members of the majority, are unfortunately often taking place in our modern multiethnic societies and contribute to foster the endorsement of prejudice by leveraging on national feelings and cultural or religious differences (Safi, 2010; Wrench, 2016).

Social sciences, including psychology, have long been interested in trying to understand the internalized individual differences that may explain how and in which circumstances individuals show manifestations of prejudice and rejection of out-groups in a given context (e.g., Allport, 1954; Dasgupta, 2004; Devine, 2001). In particular, research on intergroup relations shows that childhood and adolescence developmental stages are critical to uncover the change over time in prejudice (Kuhn, 2004; Titzmann, Brenick, & Silbereisen, 2015). Within the current social-developmental research literature on this topic (e.g., Raabe & Beelmann, 2011; Tenenbaum & Ruck, 2012), researchers are especially focused on trying to uncover individual and social factors that might contribute to the crystallization of prejudice and other forms of biased intergroup attitudes

during adolescence favoring the formation of steady prejudice late in life. Adolescence is in fact a critical moment for changes in attitudes toward immigrants and out-groups members (La Barbera, 2015; Verkuyten & Thijs, 2002). This age period is recognized as a delicate developmental period during which personal identity is shaped also exploring one's own social (ethnic) identities (Degner & Wentura, 2010). Moreover, adolescents are increasingly growing up in multiethnic societies, so it is critical to focus research in contexts such as schools where native adolescents' prejudice may relate to higher levels of violence against immigrants and lower levels of tolerance (Brenick, Titzmann, Michel, & Silbereisen, 2012; Kuhn, 2004; van Zalk & Kerr, 2014; Walsh et al., 2016). Accordingly, drawing from social learning theory (Bandura, 1986) describing how beliefs about social norms directly influence behavior, the current study aims to gain more insight into how individual aggressive tendencies may affect prejudice and benevolence toward immigrants among high school students. Focusing on the connection between internalized aggressive tendencies and prejudice may specifically help to promote future interventions aimed to tackle social exclusion in contexts such as schools before it can result in violence. In fact, as reminded by Huesmann, Guerra, Miller, and Zelli (1992) and by McConville and Cornell (2003), youth holding positive beliefs about the acceptability of aggression may be more likely to engage in aggressive behaviors simply because this type of response exists within their range of possible reactions to problems. Thus, we aimed at looking more into details how different traits of readiness to aggress relate to relevant prejudice correlates among adolescents in a high school context.

### Individual Differences in Prejudice

Social identity theory posits that people develop a set of beliefs and attitudes toward out-groups members during their own social identification process (Tajfel & Turner, 1986). Specifically, some people develop neutral or favorable attitudes toward out-group members while others develop negative attitudes and prejudiced beliefs (Alfieri & Marta, 2015; Jugert, Noack, & Rutland, 2011). Some of the factors that have been associated with the occurrence of prejudice and negative attitudes toward out-groups include personality-level correlates such as callous-unemotional traits (van Zalk & Kerr, 2014) characterized by lack of empathy and hostility toward strangers (Kimonis et al., 2006), political orientation (i.e., right-wing authoritarianism) (Hodson & Costello, 2007), and social dominance orientation (SDO; Bäckström & Björklund, 2007; Perry & Sibley, 2011). In addition, recent research findings have reported how already during adolescence, individual levels of endorsement of aggressive behaviors and thoughts may play a significant triggering role for the development of negative attitudes toward members of the most rejected out-groups (Piumatti, Marengo, Mosso, & Rabaglietti, 2015). That is the case of immigrants, which are portrayed as a threat for public safety from mass media and political speeches and, thus, considered as undesirable outgroup from the host group (Kosic, Mannetti, & Sam, 2005). Indeed, Özdemir, Özdemir, and Stattin (2016) have found that youths with negative attitudes toward immigrants are particularly likely to engage in ethnic harassment over time when they have high levels of impulsivity and lack of appropriate emotional control. Nevertheless, although prejudice and aggressive tendencies have several characteristics in common, including negative reactions to a target and behavioral responses that might escalate in harming others (Grossarth-Maticek, Eysenck, & Vetter, 1989; Kiesner, Dishion, & Poulin, 2000), few studies have looked at the association between attitudes toward ethnic out-groups and relevant prejudice related individual characteristics with levels of endorsement of aggressive tendencies and behaviors (Miller, Pedersen, Earleywine, & Pollock, 2003; Reijntjes et al., 2013). Accordingly, the aim of the present study was to explore how individual differences in endorsement of aggression relate to prejudice and established prejudice correlates among adolescents. We expected specific prejudice-prone individual differences to be explained as a function of individual differences in endorsement of aggressive behaviors and thoughts. Tendencies

characterized by intergroup dominance (SDO), low tolerance and high prejudice toward immigrants (i.e., xenophobia), and low ethnic out-groups ratings were therefore expected to be a function of a high endorsement of aggression.

## The North-Western Italian Context

The current research took place in Northwest Italy where immigration history is shorter than other rich European countries such as France, Britain, or France. Nevertheless, according to recent demographic surveys, about 8.3% of the current Italian resident population is foreign (60% more than in 2002; ISTAT, 2016). Immigrants are unevenly distributed across Northern and Southern Italy, with the striking majority living in the North where access to the labour market is less difficult than in the South (ISTAT, 2016). Despite the resulting multi-ethnic scenario in many urban centres of the North, Italians' tendency is to deny this reality, with political forces and media strengthening this position by relying on social tensions that are still part of the backlashes of the recent crisis in various economic sectors (Ambrosini, 2013). As a result, the "immigrant outsider" is viewed as a threat for the national economic assets and for one's own cultural values. Thus, there is an impellent need to advise intervention strategies and policy making aimed at changing this trend already in the youngest generations so to promote social cohesion in key areas of the society such as schools (Vezzali, Capozza, Giovannini, & Stathi, 2011).

## Method

### Sample and Procedures

One hundred and forty-one high school students – 46 boys (32%) and 95 girls (68%) – from two high schools located in the urban area of the city of Turin in the northwest of Italy took part into this study. The two high schools were selected within the same urban district to reduce possible biases due to different geographical locations (e.g., urban versus suburban or urban versus rural). The inclusion criteria for every participants was the age range (between 13 and 18 years old) and being enrolled as a full-time student. Socio-economic status was not assessed; however, students from these selected schools were representative of a wide range of social classes (from lower and working classes to upper-middle class). The average age was 16.08 years (*Range* = 13-18; *SD* = 1.57). Questionnaires were submitted online in an anonymous form. Informed consent was given by the parents of the students who were less than 18 years old when the research was undertaken. All participants declared to have been born in Italy and therefore had Italian nationality.

## Measures

### Endorsement of Aggression

The authors adopted an Italian version of the Readiness for Interpersonal Aggression Inventory (Frączek, Konopka, & Smulczyk, 2009) to measure adolescents' individual endorsement of aggressive behaviors and thoughts. Participants were asked to answer "yes" or "no" to thirty statements after being asked to consider if these statements corresponded to their personal attitude towards feelings of anger and aggressive states of mind or behaviors. Three patterns of endorsement of aggression were measured through this inventory by grouping the items and summing the scores of each one ("yes" corresponds to a score equal to "1" and "no" corresponds to a score equal to "0") to obtain a continuous score on a scale from 0 to 10 for each pattern. Patterns of endorsement of aggressive behaviors and thoughts (or readiness for aggression) are (1) *emotional-*

*impulsive* (e.g., “I have sudden angry outbursts”), describing function responsible for number and intensity of short-term aggressive responses to stimuli such as natural and conditioned ones, frustration or distress; (2) *habitual–cognitive* (e.g., “I think that some people don’t deserve to be treated very nicely”), defined by specific habits and beliefs both implemented into planned and social aggressive actions responding to requirements and/or role-oriented tasks; and (3) *personality–immanent* (e.g., “I sometimes feel like hurting someone without any obvious reason”), responsible for stable and immanent need to hurt other people and comprehending a return in positive emotions or satisfaction for the realization of the aggressive acts. The three factor structure of this measure has been previously tested and validated in a population of Italian adolescents with good model results (see Piumatti et al., 2015). For the current study, the analysis of internal reliability was also satisfactory, with Cronbach’s alphas equal to .72, .66, and .78 for emotional–impulsive, habitual–cognitive, and personality–immanent respectively.

### SDO

SDO was measured using Pratto, Sidanius, Stallworth, and Malle’s (1994) 14-item scale. Students were instructed to read each item and to write a number from 1 to 7 that indicated how positively or negatively they felt about the statement (1 = *extremely negative*, 7 = *extremely positive*). Sample items from the scale are “Group equality should be our ideal” (reverse-scored) and “Inferior groups should stay in their place”. Internal reliability was good with Cronbach’s alpha equals to .80.

### Tolerance and Prejudice Toward Immigrants

We used the Tolerance and Prejudice Questionnaire (van Zalk, Kerr, van Zalk, & Stattin, 2013) to measure tolerance and prejudice toward immigrants. The Italian version of this instrument was formed by translation and back translation by English and Italian mother tongues. Prejudiced tendencies were assessed with four items describing negative generalized statements about immigrants, such as “Immigrants increase criminality”. Tolerance was measured by four items regarding equality between immigrants and non-immigrants, such as “Immigrants and non-immigrant should have equal rights”. Participants rated their agreement with each statement along the following scale: 1 = *don’t agree at all*, 2 = *don’t particularly agree*, 3 = *agree pretty well*, 4 = *agree completely*. Confirmatory factor analysis run in Mplus 6.11 (Muthén & Muthén, 2007) tested the a priori two-factor model (tolerance and prejudice) in the current Italian sample. This model yielded acceptable fit results:  $\chi^2(19, N = 141) = 395.62, p < .01$ ; RMSEA = .05; CFI = .98; TFI = .97. All parameters that were freely estimated resulted significant at  $p < .05$ . In addition, the analysis of internal consistency was also satisfactory, with Cronbach’s alphas equal to .77 for the tolerance scale and .77 for the prejudice scale. Although the Italian version of the present scale has not been used in previous studies adopting populations of Italian adolescents, these current factorial results support its validity for its adoption in our sample.

### Ethnic Group Ratings

In order to assess individual preferences regarding different national and ethnic groups, participants were presented with three questions about their feelings on 8 groups: (1) “How much do you like the following groups?” (2) “How nice do you consider the following groups?” and (3) “How much can you trust people from the following groups?” For each question, participants responded using a 7-point scale (1 = *not at all* and 7 = *very much*; e.g. 1 = *I don’t like them at all* and 7 = *I like them very much*). The above three questions were addressed to each of the following groups: German, Italian, Chinese, North African, Moroccan, French, Albanian, and Romanian. This list of national and ethnic groups was selected to provide different out-groups

experiencing varying degrees of prejudice in the Italian context. The Italian group was included in the questionnaire as a control variable. Responses along the three questions were averaged to give an overall preference/rating score for each group. This scale has already been tested previously in a sample of Italian adolescents with good reliability scores (Kiesner, Maass, Cadinu, & Vallese, 2003). For the current sample the Cronbach's alphas for the three questions calculated separately for each group ranged from .81 to .96.

## Results

### Descriptive Statistics

There was less than 5% of missing data on any of the variables in the current analysis. Full information maximum likelihood was used in the software package Mplus 6.1 to handle missing data. Prior to the analysis, data was also carefully examined for univariate outliers (classified as scores more than three standard deviations above or below the mean; see Hoaglin & Iglewicz, 1987). As a result of these preliminary analyses, no case was excluded from further analysis.

Figure 1 reports group ratings box plots for every groups in ascending order based on the value of their median rating score. To test if participants' negative rating of one out-groups was related to negative rating of other out-groups we used a Principal Components Factor Analysis with Varimax rotation. Reading from Kiesner and colleagues (2003), this analytical strategy allowed to determine whether participants consistently gave low ratings across all out-groups or whether some out-groups can be grouped together in terms of similar preference levels. Using an eigenvalues' threshold of 1 two factors emerged. Factor analysis results (including factor loadings, eigenvalues, and variances explained by each factor) are presented in Table 1. By looking at the factor loadings it is clear how the first factor describes out-group ratings while the second factor in-group ratings. In fact, except for German, all groups clearly loaded on only one factor. These results indicate that (1) out-group and in-group ratings are greatly independent, (2) the consistently high factor loadings for every out-group on the same factor is a sign they are highly correlated. Therefore, this would suggest that some individuals demonstrate a general prejudice tendency across a variety of out-groups. To further differentiate between out-groups based on participants' ratings scores, we conducted one-sample t-tests for each group, using the midpoint of the scale along which ethnic groups were rated as the criterion value (i.e., 4). We did so following the same procedure adopted by Kiesner et al. (2003) that employed this same type of measure for evaluating ethnic out-groups ratings in a sample of Italian high school students. Out-groups with a mean rating significantly lower than 4 were labeled "stigmatized" out-groups. On the other hand, out-groups with a mean rating not significantly below 4 were labeled "non-stigmatized" out-groups. Moroccan, Albanian and Romanian reported mean ratings significantly below the scale midpoint (all  $p < .001$ ; see Figure 1). The other two out-groups, namely Chinese and North African, were not different from the scale midpoint. Finally, German, Italian and French reported mean ratings significantly above the scale midpoint (all  $p < .01$ ). Therefore, the 5 out-groups (namely excluding Italian, French and German groups) were divided into two categories, stigmatized out-groups (scoring significantly below the criterion midpoint value of 4; i.e., Moroccan, Albanian, and Romanian) and non-stigmatized out-groups (scoring not significantly different from the criterion midpoint value of 4; i.e., North African and Chinese). A composite score for these two categories was calculated through the mean of all the out-groups in that category.

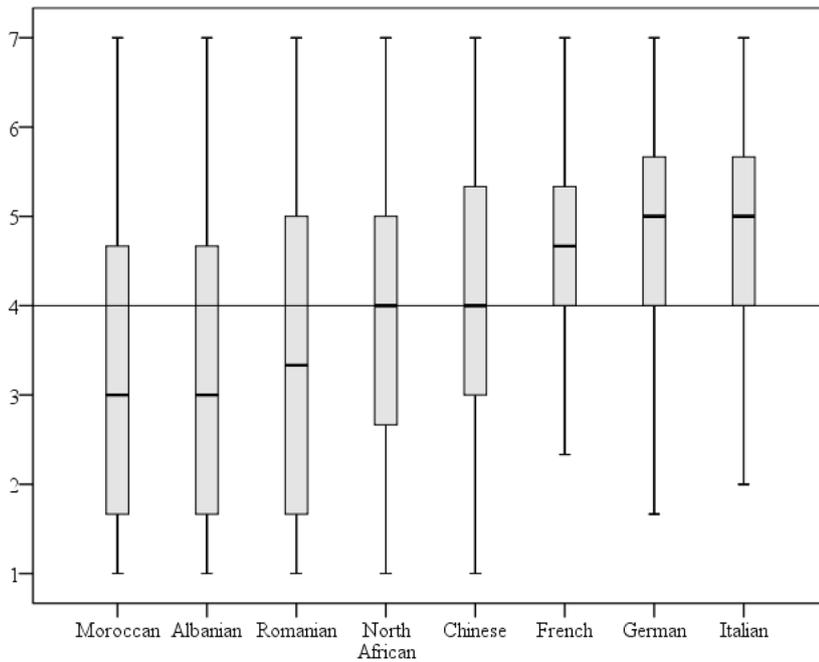


Figure 1. Box plots of group ratings for all 8 target groups.

Note. The line within each box indicates the median, the top of each box indicates the 75th percentile, and the bottom of each box indicates the 25th percentile.

Table 1

Factor Loadings for Group Ratings of all 8 Groups on Both Factors

Target Group <sup>a</sup>	Factor 1 “Out-group ratings”	Factor 2 “In-group ratings”
German	.49	.48
Italian	.06	.83
Chinese	.68	.37
North African	.84	.28
Moroccan	.93	.14
French	.35	.77
Albanian	.86	.27
Romanian	.87	.13
Eigenvalue	3.90	1.80
Variance Explained	48.70	22.90

<sup>a</sup>Groups are listed in the order listed in the questionnaire.

The correlations among all variables included in the following analyses are presented in Table 2. The strengths of the correlations present no problems of multicollinearity.

Table 2

Correlations Among all Variables Used in the Regression Analyses

Variable	1	2	3	4	5	6	7	8	9
1. Age	–								
2. Gender <sup>a</sup>	-.04	–							
3. Tolerance toward immigrants	.02	.09	–						
4. Prejudice toward immigrants	.06	-.07	-.67**	–					
5. SDO	-.04	-.14	-.53**	.50**	–				
6. Emotional–impulsive	.09	.04	-.26**	.21*	.12	–			
7. Habitual–cognitive	.07	-.11	-.32**	.40**	.35**	.50**	–		
8. Personality–immanent	.10	-.14	-.30**	.29**	.35**	.25**	.64**	–	
9. Non stigmatized out-groups ratings	.08	.13	.48**	-.48**	-.34**	-.08	-.19*	-.25**	–
10. Stigmatized out-groups ratings	.02	.06	.61**	-.58**	-.39**	-.14	-.28**	-.36**	.79**

<sup>a</sup>Gender was coded 0 for male and 1 for female.\* $p < .05$ . \*\* $p < .01$ .

### Regression Models Predicting Tolerance, Prejudice, SDO and Out-Groups Ratings

In order to test how individual endorsement of aggressive behaviors and thoughts explains individual difference in the prejudice measures included in the current study, we conducted five multiple hierarchical regressions. In each model the independent variables were entered in the following order: age and gender (coded 0 for female and 1 for male) as covariates in the first step; and the three dimensions of endorsement of aggression (emotional–impulsive, habitual–cognitive, and personality–immanent) in the second step. The five dependent variables for each separate multiple hierarchical regression model were: tolerance toward immigrants, prejudice toward immigrants, SDO, non-stigmatized out-groups ratings, and stigmatized out-groups ratings. All continuous variables included in the analysis were standardized to have a mean of zero and a standard deviation of 1 to facilitate interpretation.

Together, the three dimensions of endorsement of aggressive behaviors and thoughts explained significant portions of variance in each model except for the one predicting non-stigmatized out-groups (see Table 3). Together, emotional–impulsive, habitual–cognitive, and personality–immanent explained: 14% of the variance pertaining to tolerance toward immigrants,  $F(5, 140) = 4.25, p < .01$ ; 16% of the variance pertaining to prejudice toward immigrants,  $F(5, 140) = 5.16, p < .001$ ; 16% for SDO,  $F(5, 140) = 4.96, p < .001$ ; and 13% of the variance pertaining to stigmatized out-groups ratings,  $F(5, 140) = 3.97, p < .01$ . Overall, the three sub-scales of endorsement of aggression resulted negative predictors of tolerance toward immigrants and stigmatized out-groups ratings, while they resulted positive predictor of prejudice toward immigrant and SDO. In particular, higher scores on habitual–cognitive increased the probability of having higher scores on prejudice toward immigrants ( $\beta = .35, p < .01$ ), while higher scores on personality–immanent increased the probability of having higher scores on SDO ( $\beta = .21, p < .05$ ), and of having lower scores on stigmatized out-groups ratings ( $\beta = -.30, p < .01$ ).

Table 3

Regression Models Predicting Tolerance, Prejudice, SDO and Out-Groups Ratings

Steps and predictor variable	Tolerance toward immigrants		Prejudice toward immigrants		SDO		Non stigmatized out-groups ratings		Stigmatized out-groups ratings	
	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$
Step 1	.01		.01		.02		.03		.01	
Age		.06		.03		-.08		.11		.06
Gender <sup>a</sup>		.07		-.02		-.10		.12		.02
Step 2	.14***		.16***		.16***		.08		.13***	
Emotional–impulsive		-.17		.02		.02		-.03		-.05
Habitual–cognitive		-.12		.35**		.20		-.04		-.06
Personality–immanent		-.16		.05		.21*		-.18		-.30**

<sup>a</sup>Gender was coded 0 for male and 1 for female.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

## Discussion

Prejudice in adolescence is a threat to multicultural societies since it can lead to intolerance and manifestations of violence toward immigrants (Beelmann & Heinemann, 2014; Dessel, 2010). Thus, it is crucial to identify those factors that may help to develop strategies and interventions likely to reduce prejudice and negative attitudes. The present investigation explored relationships between individual differences in endorsement of aggressive behaviors and thoughts with attitudes toward ethnic out-groups and prejudice-relevant correlates among adolescents. As expected, participants higher in individual endorsement of aggression significantly reported higher prejudice and SDO and lower tolerance and ethnic out-groups ratings. Similar overall trends were observed in previous studies that noticed how stronger endorsements of aggressive humor styles is correlated with higher SDO and higher ethnic prejudice (Hodson, MacInnis, & Rush, 2010; Jonason, 2015). Such results are also in accordance with previous research that stressed out how individual personality traits describing hostile tendencies toward out-groups predict fewer decreases in prejudiced attitudes toward immigrants in adolescents (van Zalk & Kerr, 2014). These findings indicate that the endorsement of aggressive behaviors and thoughts may fall into the cognitive spectrum of prejudice and as such may play a relevant triggering role for the manifestations of negative attitudes toward out-groups already during adolescence. Future research focusing on the development of prejudice during this age period should therefore consider including this source of individual differences to demonstrate how prejudice may develop over time.

Reading our results through the lens of self-control theory (Gottfredson & Hirschi, 1990) we can interpret that adolescents with difficulties in regulating their negative thoughts and emotions may fail to see positive features of immigrants and may be preoccupied instead with negative ideas about them as a coercive consequence of their impulsivity. Readiness for aggression traits related to habitual and socially determined aggressive acts (habitual–cognitive) as well as traits responsible for stable needs to hurt others as a source of satisfaction (personality–immanent) seems to better correlate with prejudice with respect to other traits responsible instead for lack of appropriate emotional control (emotional–impulsive). Specifically, the habitual–cognitive type of endorsement of aggression was found to be positively correlated with prejudice toward immigrants while personality–immanent was positively correlated with SDO and stigmatized out-groups ratings. Indeed, previous

studies (Gottfredson & Hirschi, 1990; Jessor & Jessor, 1977) suggests that feelings of prejudice projected against ethnic and racial out-groups may be associated with general problem-behavior. Manifestations of prejudice can thus be part to a broader pattern of antisocial behavior (Kiesner et al., 2003) including aspects of cognitive intentional aggression (Shaffer, Meyer-Bahlburg, & Stokman, 1981). Moreover, negative manifestations and attitudes toward out-groups within the society may more often occur when individuals experience harsh or frustrating circumstances in their lives (Berkowitz, 1981). This is the case for areas such the Northwest of Italy where economic difficulties and high rates of immigration occur together without being correlated. Then, the relationship between hostility, aggressive tendencies and prejudice thoughts may result more easily to detect when it aims at immigrant out-groups (Schnieders & Gore, 2011). Unlike religiously or gender defined minority groups, immigrants are often depicted as the ultimate out-group by natives. In times of economic and jobs crises, these can be targeted with contempt since they may be considered a cause for the lacking of job opportunities. These social mechanisms may thus help to explain how internalized aggressive tendencies can translate in prejudice tendencies and intolerance against specific social and ethnic out-groups.

On a related note, it is worth to comment upon the results of perceived out-groups hierarchies reported by the current sample of adolescents. The fact that French and German out-groups resulted the closest to the Italian in-group in comparison with the rest of the out-groups can be explained by the overall positive attitude of Italians toward the European Union (Risse, 2003). In particular, Italy and France share more compatible national and cultural identities (Ruiz Jiménez, Górniak, Kosic, Kiss, & Kandulla, 2004) and therefore French are more likely to occupy a closer position than German, that on the other hand are still ambivalent with regards to the European Union (European Commission, 2003).

Finally, this study had limitations that need to be mentioned. Firstly, the cross-sectional data adopted here make it impossible to point out at any real effect between endorsement of aggression and prejudice correlates, while the analyses performed represent a descriptive attempt to test the relationship between these two constructs. Secondly, individual differences in prejudice were examined only pertaining to ethnic groups. Further research is needed to study prejudice and its correlates in a cross-domain manner.

## Conclusions and Final Remarks

This study evidences how prejudice in adolescence may be related to individual traits of endorsement of aggression. In particular, these findings are closely related to previous research conducted in recent years in Italy (Piumatti et al., 2015) aiming at investigating specific psychological correlates of prejudice among high school students. More specifically, these current results expand such previous work by evidencing how individual aggressive predispositions are in fact correlated to a much wider range of prejudice correlates in this age period, including social dominance orientation and xenophobic attitudes. These results have important implications for the development of interventions that may tackle both predispositions to behave aggressively and manifestations of ethnic prejudice in adolescents to promote positive school climate and multicultural integration. In particular, the current results suggest that such type of intervention strategies may be beneficial in normal populations of adolescents.

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## Competing Interests

The authors have declared that no competing interests exist.

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