

Bullying and moral disengagement in early adolescence: Do personality and family functioning matter?

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Abstract

The present study adopted a multi-informant approach to investigate the contribution of personality and family functioning to moral disengagement and bullying-related behaviors in early adolescence. The sample included 102 early adolescents (53 boys and 49 girls; mean age = 12.21 years; effect size = 0.35, power = 0.95, and error probability = 5%). Behaviors during bullying situations were detected by peer nominations. Self-report measures were administered to assess moral disengagement and family functioning, whereas a parent-report was administered to detect personality traits. Results showed that extraversion was positively associated with bullying and moral disengagement, while benevolence was positively associated with defending behavior. Family functioning was negatively associated with moral disengagement. Furthermore, we found that personality and family functioning were intertwined in their association with bullying-related behaviors and moral disengagement. In particular, a low conscientiousness, together with a low family functioning, decreased the likelihood of defending behavior and increased the risk of bullying. High levels of benevolence decreased outsider behavior in students with a high family functioning. Although extraversion was positively associated with bullying and moral disengagement, findings suggested that it increased moral disengagement only among early adolescents with low family functioning. Overall, findings underline the importance of addressing individual and contextual variables when studying bullying and moral disengagement among early adolescents.

Keywords: bullying, defending, outsider, moral disengagement, personality, family functioning

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Bullying and moral disengagement in early adolescence: Do personality and family functioning matter?

Individual and contextual variables, such as personality traits and family functioning are associated with both bullying-related behaviors and moral disengagement (Caprara et al., 2014; De Angelis, Bacchini, & Affuso, 2016). Recent literature suggested that immoral behavior, such as bullying, is the result of children's characteristics and social variables within children's school, home, peer group, and the wider community (Espelage & Swearer, 2010; Swearer & Doll, 2001). As to moral disengagement, Bandura (1999) suggested that it has its main roots in social experiences, learning, and environmental factors, such as rejecting parenting (Hyde, Shaw, & Moilanen, 2010). However, literature has also shown that individual dispositions, such as personality traits, may help to understand the self-serving justifications of immoral conduct (Caprara et al., 2012). Therefore, bullying and moral disengagement can be better understood as complex phenomena, in which personal dispositions and contextual factors play a role (Book, Volk, & Hosler, 2012).

Bullying: A Socio-Ecological Perspective

Bullying is an immoral behavior characterized by frequent and proactive acts of harassment towards someone who is weak or powerless (Gini, Pozzoli, & Hauser, 2011; Olweus, 1993). The estimated prevalence of bullying varies according to the methods adopted to assess it. According to official statistics, in Italy, where the present study was conducted, 14% of 11-year-old students (5% girls; 9% boys) and 11% of 13-year-old students (6% girls; 7% boys) are victimized. In respect to bullying perpetration, 11% (3% girls; 8% boys) of 11-year-old students and 8% (3% girls; 5% boys) of 13-year-old students admit having bullied their peers (Inchley et al., 2016). Peers are involved in bullying with different roles and contribute to maintain or hinder bullying episodes. Literature pointed to several social behaviors besides those of bullies and victims, such as defending behavior, which is typical of students who help and support the victim, and outsider behavior, which is characterized by standing by passively, shying away, and not taking sides when bullying episodes occur (Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen, 1996). Bullying has negative consequences for the students involved. For instance, victimized students report various adverse psychological outcomes, such as increased anxiety, depression, and psychosomatic complaints (Rigby, 2003), while those who bully their peers are at risk of anti-social and delinquent behavior (Bender & Lösel, 2011). However, bullying has harmful consequences also for the students who witness. Indeed, bystanders of school bullying show increased risk of mental health problems (e.g., anxiety, paranoid ideation; Rivers, Potteat, Noret, & Ashurst, 2009).

The reasons for bullying are complex and intertwined. Previous research suggested that bullying dynamics might be understood within the socio-ecological framework, as originating from personal disposition and contextual variables (Swearer & Doll, 2001). For instance, school-level contextual factors, such as connection with school staff, the belief that other students would intervene in bullying, along with the fear of retaliation, are all factors affecting the

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likelihood of helping the victims or getting involved in bullying (Waasdorp & Bradshaw, 2018). Among contextual characteristics, family functioning may also contribute to bullying involvement. For instance, a lack of warmth among family members and a failure in establishing an emotional bond with parents may be a risk factor for children to become hostile and aggressive towards their peers. Adolescents who bully their peers are more likely to display poor attachment security to their parents (Murphy, Laible, & Augustine, 2017), and to come from families lacking in cohesion and communication, which are important variables for social skills development (Önder & Yurtal, 2008; Spriggs et al., 2007). Similarly, children coming from families with a high conflict level are more likely to bully their peers (Stevens, Bourdeaudhuij, & van Oost, 2002). In contrast, a warm and positive atmosphere at home promotes the emotional and behavioral adjustment of victimized children (Bowes, Maughan, Caspi, Moffitt, & Arsénault, 2010).

A secure attachment to the mother (Nickerson, Mele, & Princiotta, 2008) and a secure attachment with both parents and peers (Murphy et al., 2017) are associated with defending behavior. A study by Valdés-Cuervo, Alcántar-Nieblas, Martínez-Ferrer, & Parra-Pérez (2018) found that a good family climate and a restorative parental discipline, without stigmatization, were associated with defending behavior, both directly and through the mediation of empathy and shame. Similarly, other studies reported positive family management to be associated with adolescents' likelihood to stop bullying (Mulvey et al., 2018).

Although the behavior of children who witness bullying may also depend upon socio-ecological factors, such as classroom collective moral disengagement (Gini, Pozzoli, & Bussey, 2014) group norms, and in-group identification (Palmer, Rutland, & Cameron, 2015), less is known about the role of family functioning on outsider behavior. Only a very few studies are available, showing that a secure attachment to parents and peers has no significant links with being an outsider (Murphy et al., 2017) and that a positive family management is associated with a minor likelihood of showing passive bystander behavior (Mulvey et al., 2018).

Bullying: An Individual Perspective

Among individual variables, personality traits have been investigated to understand bullying-related behaviors (Menesini, Camodeca, & Nocentini, 2010; Pronk, Olthof, & Goossens, 2014). Personality has been described as a stable tendency, rooted in genetic and temperamental characteristics, to show emotional, interpersonal, experiential, attitudinal, and motivational styles (Shiner & Caspi, 2003). Researchers from different traditions proposed various classifications of personality traits. However, they mostly agree about the existence of a few broad dimensions, which reflect values or motivations guiding individuals' behaviors, i.e., openness to experience, conscientiousness, extraversion, agreeableness (referred to as benevolence in children studies; Vollrath, Hampson, & Jùliusson, 2012), and emotional stability (Kohnstamm, Halverson, Mervielde, & Havill, 1998).

Poor agreeableness has been found consistently associated with bullying across different cultures (Bollmer, Milich, & Harris, 2006; Volk, Schiralli, Xia, Zhao, & Dane, 2018). On the opposite, students who score high on agreeableness tend to be altruistic and concerned for others' well-being (Mitsopoulou & Giovazolias, 2015) and to be involved in bullying with the non-aggressive roles of outsider and defender (Pronk, Olthof, & Goossens, 2015). Other studies found that students showing defending behavior are more agreeable than outsiders (Tani, Greenman, Schneider, & Fregoso, 2003). Being agreeable is likely to make individuals more sensitive and concerned about the needs of others, which may, in turn, increase prosocial behavior (Pronk et al., 2015). As to conscientiousness, it was found consistently and negatively associated with aggression and bullying (Mitsopoulou & Giovazolias, 2015); however, there is a lack of knowledge in respect to the association between this personality trait and other bullying-related behaviors.

Finally, previous studies have shown contrasting findings about extraversion, with some research findings showing a positive association with bullying (Connolly & O' Moore, 2003) and some other findings documenting a non-significant association between bullying and extraversion (Bollmer et al., 2006). As to students with outsider behavior, they are less extroverted compared to their peers showing defending behavior (Tani et al., 2003). Coherently with this result, previous literature indicated that extraversion negatively predicts outsider behavior (Pronk et al., 2015).

Moral Disengagement: The Influence of Individual and Contextual Variables

Moral disengagement refers to a set of cognitive mechanisms aimed at avoiding moral censure and self-judgment on the actual behavior (Bandura, 1999). Previous research showed that moral disengagement reduces prosocial behavior by promoting cognitive and affective reactions conducive to immoral behavior (Bandura, Barbaranelli, Caprara & Pastorelli, 1996). More specifically, the self-serving cognitive distortions of moral disengagement attenuate the feelings of guilt for immoral behavior, while facilitating detrimental conduct (Bandura, et al., 1996). Various negative behavioral outcomes, such as aggression, bullying, antisocial, and delinquent behavior were found associated with moral disengagement (Hyde, et al., 2010). Longitudinal findings also confirm these associations, showing that moral disengagement predicts future aggression and bullying (Barchia & Bussey, 2011; Wang, Ryoo, Swearer, Turner & Goldberg, 2016).

The socio-cognitive theory of moral agency posits that children's standards of moral behaviors are socialized within the socio-cultural context (Bandura, 1999). This theoretical assumption was confirmed across research findings suggesting that early parenting shapes children's internalization of moral rules and subsequent moral behavior (Kochanska, 2002) and that family relationships along with the wider social environment may also encourage moral disengagement (Hyde et al., 2010). Throughout children's development, moral behaviors are progressively regulated by internalized moral norms, rather than by external sanctions originating within the family (Bandura, 1999). Indeed, moral disengagement is predicted by a combination of early rejecting parenting, neighborhood impoverishment, and

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individual characteristics (e.g., low levels of empathy; Hyde et al., 2010), whereas family cohesion and communication promote adolescents' morality (White & Metawie, 2004). More specifically, families high on cohesion, communication, and flexibility (operationalized as adaptability) provide a favorable context for moral development. Adolescents with good family functioning may see their parents as a reliable source of moral authority, and therefore, they could easily accept their parents' moral standards (White & Metawie, 2004).

In addition to social experiences and learning, also personality traits are associated with moral disengagement. While high agreeableness reduces moral disengagement (Caprara et al., 2012), poor agreeableness is positively associated with moral disengagement, which, in turn, increases aggressive behavior (Caprara et al., 2017). Furthermore, adolescents with low agreeableness and conscientiousness and high level of extraversion manifest a reduced sensitivity to moral rules (De Angelis et al., 2016). Finally, early adolescents with a high behavioral activation system (i.e., a sensitiveness to cues of reward, impulsivity, and sensation seeking), which is associated with extraversion, also show high levels of moral disengagement, likely because they have difficulties in inhibiting impulses and do not consider moral transgressions as wrong (Kokkinos, Voulgaridou, & Markos, 2016).

The present study

Whereas several studies in the literature adopted either a person-centered approach or a context-centered approach, in the present research, we attempted to uncover the intertwining of individual and contextual variables to understand bullying and moral disengagement. Coherently with the socio-cognitive theory of moral agency (Bandura, 1999) and with the socio-ecological model of bullying (Swearer & Doll, 2001), we propose that moral disengagement and bullying are associated with a complex interaction between individual (i.e., personality) and contextual variables (i.e., family functioning).

For the purposes of the present study, we focused on positive family functioning, operationalized as the combination of cohesion, flexibility, communication, and satisfaction within the family (Baiocco, Cacioppo, Laghi, & Tafà, 2013; Olson, 2011). According to the Circumplex Model of Marital and Family System (Olson, 2000), these aspects indicate the positive pole of family functioning, which is associated with adolescents' social adjustment and well-being (Shek, 2016). A positive family functioning also works as a protective factor against behavioral problems (e.g., self-harm; suicidal behavior; Shek & Sun, 2014). Furthermore, adolescents with high family functioning report fewer depressive symptoms compared to their peers with a low family functioning (Simpson, Vannucci, & McCauley Ohannessian, 2018).

As to personality, we focused on extraversion, conscientiousness, and benevolence, because, as previously exposed, they may play a salient role in relation to moral disengagement and socio-moral behaviors associated with

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bullying. Furthermore, in accordance with the socio-ecological model (Swearer & Doll, 2001), we aimed at uncovering the contribution of personality traits and family functioning to bullying-related behaviors and moral disengagement.

The following hypotheses were formulated.

Hypothesis 1: Coherently with previous findings, early adolescents manifesting bullying behaviors were expected to perceive a low family functioning (Bowers et al., 1992; Spriggs et al., 2007), while the opposite pattern was expected for early adolescents manifesting defending behavior. We did not formulate any specific hypothesis for outsider behavior, due to the lack of previous findings upon which building our speculations. As family factors constitute critical environmental variables promoting the attitude towards social and moral norms and values (Hyde et al., 2010), we expected that early adolescents with a low family functioning would be morally disengaged.

Hypothesis 2: An association was expected between personality traits and involvement in bullying and moral disengagement. Early adolescents showing bullying behavior or moral disengagement were expected to be poorly conscientious and benevolent (Caprara et al., 2012; Pronk et al., 2014). In contrast, defending was expected to be associated with high levels of conscientiousness and benevolence (Pronk et al., 2014). Given the inconsistency of previous findings in the literature, no hypotheses were formulated about the association between conscientiousness and benevolence and outsider behavior. Furthermore, we expected that bullying and defending behavior would be both associated with a high level of extraversion, as both these behaviors involve a social exposure in front of peers (Tani et al., 2003). In contrast, as early adolescents with outsider behavior have been suggested to manifest withdrawn behavior and shame in social situations, we expected outsider behavior to be negatively associated with extraversion (Mazzone, Camodeca, & Salmivalli, 2016; Pronk et al., 2014). We also expected a positive association between extraversion and moral disengagement (De Angelis et al., 2016; Kokkinos et al., 2016).

Hypothesis 3: We speculate that family functioning would work either as a protective factor or as a risk factor in moderating the association between personality and bullying-related behaviors and moral disengagement. More specifically, we hypothesized that high levels of conscientiousness and benevolence, together with a high family functioning, would contribute to increase defending behavior and to reduce bullying and moral disengagement.

We also expected that high levels of extraversion would be associated with increasing defending among early adolescents with high levels of family functioning, and with bullying and moral disengagement, among early adolescents with low family functioning. Finally, we expected that the interaction between low extraversion and low family functioning would increase outsider behavior.

Method

Participants

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Students attending two middle schools (i.e., sixth, seventh, and eighth grades) located in urban areas in Southern-Central Italy were invited to participate in this study. Overall, 213 early adolescents (109 boys and 104 girls), aged 11-15 years ($M = 12.27$ years; $SD = 0.91$), obtained parental consent and filled out the questionnaires. However, students were included in this study only in case they returned the parent-report questionnaire assessing personality traits (see below) without missing data. Therefore, the sample was reduced to 102 participants (53 boys and 49 girls; mean age = 12.21 years; $SD = .85$; range: 11-14). A t -test was run to check whether there were differences between students who did not return the parent-report questionnaire or who returned it with missing data ($N = 111$) and those who returned the parent-report questionnaire without missing data ($N = 102$). The findings showed that the two subgroups of students did not differ regarding gender, age, family functioning, bullying, and moral disengagement (p 's > .05). A difference emerged in defending behavior ($t(211) = -2.17$; $p < .05$) and in outsider behavior ($t(211) = -2.35$; $p < .05$), indicating that participants to this study had higher scores compared to non-participants (i.e., students who did not return the parent report or who returned it with missing data). An effect size of 0.35 was calculated with a sensitivity power analysis considering a power of 0.95 and an error probability of 5%, based on correlational analyses (critical effect = $\pm .19$).

Procedure

The project was presented to school principals, who gave their consent. Parents received a letter with the goals of the research project and the request to fill out a parent-report questionnaire regarding their children's personality (see below). They were asked to provide their written informed consent for their children's participation in the study, which was agreed for half of the whole population initially contacted in each school. Adolescents were informed about the goals of the research project and were told that they could withdraw at any time. However, none of them dropped out of the research. Participants completed the study measures (in counterbalanced order) during a classroom session lasting approximately 45-60 minutes. They received a booklet marked with a code, to protect their own identity, and including several questionnaires regarding also variables not considered in the present study. Students were asked to read each question carefully and to respond based on their thoughts and personal experiences. All participants were assured anonymity and confidentiality of the information provided. The present research respected the ethical rules of the American Association of Psychology (APA) and the Ethical Code of the Italian Association of Psychology (AIP).

Measures

Bullying behaviors. Peer nominations were used to assess the behaviors of bully, outsider, and defender (Pozzoli & Gini, 2010; Pozzoli et al., 2012). The following written definition of the term "bullying", adapted from Olweus (1993), was provided: *"Being bullied means that a student is repeatedly beaten, kicked, and pushed away by a peer, or a group of peers. It's also bullying when a child is repeatedly excluded, threatened, or badly teased and he/she*

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is not able to defend himself/herself. It's not bullying if two students of about the same strength quarrel or fight".

Furthermore, the researcher gave an oral definition of bullying, including examples of bullying, conflicts, and general aggressive behavior (e.g., arguments and disagreements among children, teasing, and rough play). The researcher was willing to provide students with further clarifications about bullying and how to fill out the questionnaire.

Four items per each behavior, covering different types of bullying, were employed and averaged to compose each scale. To protect anonymity, participants were provided with a class roster, including the names of all their classmates matched with a number. Participants were asked to write down the numbers matching the classmates who fit each behavior. They were asked to nominate an unlimited number of classmates, including themselves, who bullied their peers (e.g., "Among your classmates, who teases some kids calling them nasty nicknames, threatening, or offending them?"), who helped the victimized children (e.g., "Among your classmates, who stands up for the kids who are excluded from the group?"), and who showed outsider behavior (e.g., "Among your classmates, who stands by passively when some kids are hit or strongly pushed away?").

To adjust for classroom size, the nominations obtained by each student to each item were divided by the total number of nominators in the classroom. A composite variable for each role was computed averaging the scores of the four items assessing each behavior (i.e., ranging from 0, corresponding to no nominations obtained, to 1, in case nominations were received by all students in the class). Descriptive statistics and reliabilities are displayed in Table 1.

[Table 1]

Moral Disengagement. The Moral Disengagement Scale for Bullying (Caravita, Gini, & Pozzoli, 2012) was administered to investigate moral disengagement in bullying situations. Students expressed on a 5-point Likert scale the degree of agreement with each of the 27 items (1 = *completely false*; 5 = *completely true*). Examples of items are as follows: "Teasing a classmate is not really hurtful"; "Victimized children usually deserve being bullied". A moral disengagement score was computed for each participant, by averaging their responses across all items, so that high scores indicated a high tendency to morally disengage. Descriptive statistics and reliability are displayed in Table 1.

Family Functioning. The Family Adaptability and Cohesion Scale (FACES IV, Olson, 2011; Italian adaptation by Baiocco, et al., 2013) was administered to assess family functioning. This questionnaire is based upon the Circumplex Model of Marital and Family System (Olson, Sprenkle, & Russell, 1979), according to which a good family functioning originates from a balance between cohesion (i.e., the emotional bonding between family members) and flexibility (i.e., the quality and expression of leadership, organization, and rules within the family). In addition, balanced systems have good communication and high levels of satisfaction (Olson, 2011). This instrument also includes four scales assessing the lower vs upper ends of Cohesion and Flexibility (i.e., Enmeshed vs Disengaged, and Rigid vs Chaotic, respectively), which are related to problematic functioning. However, to investigate the positive climate within

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the family, only the scales assessing Cohesion, Flexibility, Communication, and Satisfaction were administered in this study. Examples of items for each scale are as follows: "The members of our family support each other when they go through hard times" (Cohesion; 7 items); "My family is able to adjust to change when necessary" (Flexibility, 7 items); "The members of our family are able to express their reciprocal fondness" (Communication, 10 items); "I am satisfied about closeness among the members of our family" (Satisfaction, 10 items). Scores of the 34 items were averaged for each participant, in order to have a total score assessing a positive Family Functioning (see Table 1 for descriptive statistics).

Personality. Parents completed the Italian version of the Hierarchical Personality Inventory for children (HiPIC; Mervielde & De Fruyt, 1999; Italian adaptation by Di Blas, Serafino, & De Fruyt, 2012). Students received an envelope, marked with the same code they had on their booklet and containing the questionnaire for their parents. They were recommended not to exchange their envelope with those of their classmates, to ask their parents to fill out the questionnaire, and to return the sealed envelope to a teacher as soon as possible. Of the returned questionnaires, 79.5% were filled by the mothers, 18.9% by the fathers, and 1.6% by both parents. The HiPIC includes 108 items and five broad personality traits, i.e., Extraversion (involves low shyness and high expressiveness, optimism, and energy), Benevolence (corresponding to Agreeableness in adult-reports; Vollrath et al., 2012; involves high altruism and compliance and low egocentrism and irritability), Conscientiousness (includes high achievement striving, order, concentration, and perseverance), Emotional Stability (involves high self-confidence and low anxiety), and Imagination (corresponding to Openness to experience in adult-reports; Vollrath et al., 2012; involves high curiosity, creativity, intellect, and concentration). We asked parents to rate on a 5-point Likert scale how much each item was representative of his/her child's behavior (1 = *uncharacteristic* to 5 = *very characteristic*) during the past 12 months. Each item refers to a specific behavior and is positively formulated in the third-person singular. As pointed out above, for the purposes of this study, we considered only the subscales of Extraversion, Benevolence, and Conscientiousness, because they may play a salient role in relation to moral disengagement and socio-moral behaviors associated with bullying.

Examples of items for each of these sub-scales are as follows: "He/She is willing to talk to others" (Extraversion, 32 items); "He/She is very tolerant towards others" (Benevolence, 40 items); "He/She is very committed in each task he/she is doing" (Conscientiousness, 32 items). Scores were computed for each participant, by averaging their parents' responses across the items in each scale. Means, standard deviations, and reliabilities are shown in Table 1.

Data Analysis

Given that bullying variables were not normally distributed within the larger sample, we used the SPSS Van der Waerden ranking procedure to normalize them. Therefore, all the study variables were transformed accordingly

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(Field, 2009). Normalized scores were used and reported throughout the results section. T-tests and correlations were calculated to uncover gender and age differences, for all study variables (Table 1). We used four hierarchical regression analyses to test the role of family functioning as a moderator in the association between personality traits (i.e., extraversion, conscientiousness, and agreeableness) and bullying, defending, outsider behavior, and moral disengagement, which were entered in the models as outcome variables. Predictors were standardized into z-scores, and interaction terms were calculated as the products between standardized variables (Baron & Kenny, 1986). Gender and age were controlled in the first step; personality traits and family functioning were entered in the second step, and the interactions between personality traits and family functioning were entered in the third step. Simple slopes analyses were conducted for the significant interactions, in order to examine the effect of the predictors (personality variables) on the outcome variables (bullying-related behaviors and moral disengagement) at different conditional values of the moderator (family functioning), which was set as above and below the mean (Aiken & West, 1991; Jaccard, Turrisi, & Wan, 1990).

Results

Findings showed (Table 1) that bullying and moral disengagement were positively correlated with extraversion and negatively correlated with benevolence and family functioning; bullying was also negatively associated with conscientiousness. Defending behavior was positively correlated with benevolence, conscientiousness, and family functioning. Boys reported higher scores on bullying ($t(211) = 2.13; p < .05$) and on moral disengagement ($t(210) = 2.23; p < .05$), and lower scores on defending behavior ($t(211) = -4.52; p < .001$), compared to girls. As to age, bullying and moral disengagement tended to increase with age ($r = .20$ and $r = .22; p$'s $< .05$), whereas extraversion and family functioning tended to decrease with age ($r = -.21$ and $r = -.15; p$'s $< .05$). Therefore, we controlled for gender and age in the following regression analyses.

Findings of the hierarchical regression analyses (Table 2) showed that extraversion was associated with bullying and moral disengagement, benevolence was associated with defending behavior, and family functioning was negatively related to moral disengagement.

[Table 2]

The interactions between family functioning and personality traits predicted all outcome variables. A low level of conscientiousness was associated with increasing bullying ($\beta = -.32; p < .05$; Figure 1) and decreasing defending behavior ($\beta = .31; p < .05$; Figure 2) among students with a low family functioning. Coefficients were not significant for high family functioning. A high family functioning strengthened the association between high benevolence and low outsider behavior ($\beta = -.29; p < .05$; *ns* for low levels of family functioning; Figure 3). Although the interaction between conscientiousness and family functioning on outsider behavior was significant, no differences emerged in the slope

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analysis. Finally, the association between high extraversion and high moral disengagement was significant for adolescents with a low family functioning ($\beta = .48$; $p < .001$; *ns* for high family functioning; Figure 4).

[Figures 1-4]

Discussion

In the attempt to bridge research on individual and contextual factors associated with bullying and moral disengagement, the present study investigated the interplay between personality traits and family functioning. Overall, findings corroborate the theoretical models, according to which a dynamic interplay between dispositional and contextual variables exists (Bandura, 1999; Swearer & Doll, 2001).

In respect to our first hypothesis, we found that family functioning was negatively correlated with bullying and positively correlated with defending behavior; however, these associations were non-significant in the regressions. During early adolescence, further contextual variables may be more directly associated with the behaviors manifested in bullying situations. Given that bullying is a complex group phenomenon, we assume that the intertwining between several socio-contextual factors (e.g., peer group; school climate; relationship with the teacher) may have a more prominent role in explaining bullying and defending behavior than family functioning. For instance, early adolescents are likely to show defending and outsider behavior depending on friendship relationships with the victim and with the bully (Oh & Hazler, 2009).

Family functioning was also negatively associated with moral disengagement. As suggested in previous studies, a poor emotional bond between family members may contribute to the adoption of attitudes and beliefs that are expression of moral disengagement (Hyde et al., 2010). Early adolescents with low family functioning may develop uncaring attitudes towards others and a certain degree of socio-emotional detachment, which facilitate moral disengagement. Also, families with low functioning are less likely to stimulate discussions about moral issues and to provide indications for achieving personal responsibility (White & Metawie, 2004). However, given the cross-sectional design of our study, these speculations should be taken cautiously, as we could not infer whether a low family functioning is a cause or a consequence of moral disengagement.

As to our second hypothesis, this study replicates previous findings showing that early adolescents who bully their peers are extroverted (Menesini et al., 2010). Extraversion may lead to exert dominance in social situations (Tani et al., 2003) and it may be a necessary personality trait to commit aggressive and anti-social behaviors without fearing their consequences (Mitsopoulou & Giovazolias, 2015). Similarly, we also found that extraversion was positively associated with moral disengagement. This finding is in line with previous research documenting an association between the search for novelty and stimulation (i.e., typical facets of extraversion) and immoral behavior (i.e., disobedience, lack of guilty and trustworthiness; Menesini, Nocentini, & Camodeca, 2013)

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As expected, benevolence was negatively associated with bullying and moral disengagement: Agreeable adolescents tend to treat moral transgressions as more serious, which might be one of the reasons why they are less involved in bullying (De Angelis et al., 2016). However, the regression analysis showed that only the positive association between benevolence and defending behavior was significant, indicating an altruistic nature in those students who try to help and console their victimized peers (Menesini & Camodeca, 2008). Benevolence is characterized by high compliance and low egocentrism; hence, benevolent early adolescents may easily understand their victimized peers' distress and being prone to helping them.

The findings of the present study showed that outsider behavior was not significantly associated with family or personality variables. We argue that these students may not constitute a homogeneous group and that early adolescents with different family and personality features are likely to be nominated as outsiders. Hence, it may be difficult to draw a specific profile for these students, which have mixed personality characteristics and familial backgrounds (Murphy et al., 2017). The positive correlation with bullying suggests that students could manifest outsider behavior in some social situations and bullying behavior in others, which confirms the difficulty in tracing a unique profile of students with outsider behavior.

In respect to our third hypothesis, we found that family functioning and conscientiousness had an interactive effect on both bullying and defending behavior. In particular, we found that a high level of conscientiousness was associated with low bullying and high defending behavior in preadolescents with a low family functioning, indicating that being conscientious buffers the effect of a negative family functioning. In contrast, a positive family functioning is per se a protective factor, because it promotes defending behavior and hinders bullying, regardless of conscientiousness.

Benevolence was associated with low scores on outsider behavior only in the presence of a high family functioning. It may be reasonable to assume that benevolent (altruistic, prosocial) students with a high family functioning are not likely to witness bullying passively; instead, they show positive social behaviors (e.g., defending).

Finally, we found that extraversion predicted moral disengagement, especially in the presence of a low family functioning. This finding is particularly important because it suggests that extraversion, per se, may not have a negative connotation and it could be associated with negative outcomes based on contextual characteristics. Extraversion is a complex personality trait, including energy, expressiveness, and optimism, along with low shyness. If, on the one hand, being extroverted may enhance socially competent behaviors and could facilitate social relationships, on the other hand, active and energetic children may be prone to search for novel stimulus and express fearlessness (Raine, 2002), which may lead them to be involved in bullying and anti-social behaviors. We speculate that family functioning plays a role in encouraging children to express their extraversion facets, which may lead to either a moral or to an immoral attitude.

By validating Bandura's theorization (1999), the findings of the present study show that psychological and behavioral functioning can be understood in terms of triadic reciprocal causation, according to which internal personal factors (i.e., cognitive, affective, and biological), behaviors, and environmental events operate as interacting determinants that influence one another. In other words, bullying-related behaviors and moral disengagement can be understood as the result of a dynamic interplay between personal determinants and environmental influences, whose interaction indicates that a good (or poor) family climate may work as a protective (or risk) factor in the presence of certain personality traits. Based on Bandura's theory and on the findings of the present study, intervention programs should target both individual facets (i.e., personality) and contextual factors (i.e., family) in order to tackle bullying and moral disengagement.

Limitations and Directions for Future Research

The cross-sectional design of this study prevents from inferring causal associations between family functioning, personality, bullying-related behaviors, and moral disengagement. Future research is encouraged to employ longitudinal designs. In addition, research with larger samples is warranted to generalize the findings of this study. Unfortunately, due to our small sample, it was not possible to examine gender differences. Future studies may investigate whether family and personality are differently associated with boys' and girls' social and moral behaviors. Furthermore, future studies should detect students' socio-economic and ethnic backgrounds to replicate the present findings with diverse samples.

Conflict of interest. The authors declare that they have no conflict of interest.

Ethical Approval. All procedures performed in studies involving human participants were in accordance with the ethical standards of the Italian Association of Psychology (AIP) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent. Informed consent was obtained from all individual participants included in the study.

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References

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- Aiken, L. S., & West, S. G. (1991). *Multiple Regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Baiocco, R., Cacioppo, M., Laghi, L. & Tafà, M. (2013). Factorial and Construct validity of FACES IV among Italian adolescents. *Journal of Children and Family Studies*, 22, 962-970. doi: 10.1007/s10826-012-9658-1
- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, 3, 193-209. doi: 10.1207/s15327957pspr0303_3
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality & Social Psychology*, 71, 364-374. doi: 10.1037/0022-3514.71.2.364
- Barchia, K., & Bussey, K. (2011). Individual and collective social influences on peer aggression: Exploring the contribution of aggression efficacy, moral disengagement and collective efficacy. *Aggressive Behavior*, 37, 107-120. doi: 10.1002/ab.20375
- Bender D., & Lösel, F. (2011). Bullying at school as a predictor of delinquency, violence and other anti-social behavior in adulthood. *Criminal Behaviour & Mental Health*, 21, 99-106. doi: 10.1002/cbm.799.
- Bollmer, J. M., Harris, M. J., & Milich, R. (2006). Reactions to bullying and peer victimization: Narratives, physiological arousal and personality. *Journal of Research in Personality*, 40, 803-828. doi: 10.1016/j.jrp.2005.09.003
- Bowes, L., Maughan, B., Caspi, A., Moffitt, T. E., & Arseneault, L. (2010). Families promote emotional and behavioral resilience to bullying: Evidence of an environmental effect. *Journal of Child Psychology & Psychiatry*, 51, 809-817. doi:10.1111/j.1469-7610.2010.02216.x
- Bowers, L., Smith, P. K. & Binney, V. (1992). Cohesion and power in the families of the children involved in bully/victim problems at school. *Journal of Family Therapy*, 14, 371-387. doi: 10.1046/j.1992.00467.x
- Caprara, G. V., Alessandri, G., Tisak, M. S., Paciello, M., Caprara, M. G., Gerbino, M., & Fontaine, R. G. (2012). Individual differences in personality conducive to engagement in aggression and violence. *European Journal of Personality*, 27, 290-303. doi: 10.1002/per.1855
- Caprara, G. V., Tisak, M., Alessandri, G., Fontaine, R. G., Fida, R., Paciello, M. (2014). The contribution of moral disengagement in mediating individual tendencies toward aggression and violence. *Developmental Psychology*, 50, 71-85. doi: 10.1037/a0034488
- Caprara, G. V., Gerbino, M., Perinelli, M., Alessandri, G., Lenti, C., Walder, M., ...& Nobile, M. (2017). Individual differences in personality associated with aggressive behavior among adolescents referred for externalizing behavior problems. *Journal of Psychopathology & Behavioral Assessment*, 39, 680-692. doi: 10.1007/s10862-

Running Head: BULLYING, MORAL DISENGAGEMENT, PERSONALITY AND FAMILY FUNCTIONING

017-9608-8

- Caravita, S. C. S., Gini, G. & Pozzoli, T. (2012). Main and moderated effect of moral cognition and status on bullying and defending. *Aggressive Behavior*, 38, 456-468. doi: 10.1002/ab.21447
- Connolly, I., & O' Moore, M. (2003). Personality and family relations of children who bully. *Personality & Individual Differences*, 35, 559-567. doi: 10.1016/S0191-8869(02)00218-0.
- De Angelis, G., Bacchini D., & Affuso, G. (2016). The mediating role of domain judgement in the relation between the Big Five and bullying behaviours. *Personality & Individual Differences*, 90, 16-21. doi: 10.1016/j.paid.2015.10.029
- Di Blas, L., Serafino, F., & De Fruyt, F. (2012). La versione italiana del Hierarchical Personality Inventory for Children (HiPIC). Contributo alla validazione e taratura. [The Italian Version of the Hierarchical Personality Inventory for Children (HiPIC). A contribution to its validation and calibration]. *Età Evolutiva*, 82, 41-53.
- Espelage, D. L., Swearer, S. M. (2010). *A social-ecological model for bullying prevention and intervention: Understanding the impact of adults in the social ecology of youngsters*. In Jimerson, S. R., Swearer, S. M., Espelage, D. L. (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 61–72). New York: Routledge.
- Gini, G., Pozzoli, T., & Bussey, K. (2015). The role of individual and collective moral disengagement in peer aggression and bystanding: A multilevel analysis. *Journal of Abnormal Child Psychology*, 43, 441-452. doi: 10.1007/s10802-014-9920-7.
- Gini, G., Pozzoli, T., & Hauser (2011). Bullies have enhanced moral competence to judge relative to victims, but lack moral compassion. *Personality & Individual Differences*, 50, 603-608. doi: 10.1016/j.paid.2010.12.002
- Hyde, L. W., Shaw, D. S., & Moilanen, K. L. (2010). Developmental precursors of moral disengagement and the role of moral disengagement in the development of antisocial behavior. *Journal of Abnormal Child Psychology*, 38, 197-209. doi: 10.1007/s10802-009-9358-5
- Inchley, J., Currie, C., Young, T., Samda, O., Torsheim, T., Augustson, L., & Barnekow, V. (2016). *Growing up unequal: Gender and socio-economic differences in young people's health and well-being. Health behavior in school-aged children (HBSC) study: International report from the 2013/2014 survey*. Copenhagen: WHO Regional Office for Europe.
- Jaccard, J., Wan, C. K., & Turrisi, R. J. (1990). The detection and interpretation of interaction effects between continuous variables in multiple regression. *Multivariate Behavioral Research*, 25, 467-478. doi: 10.1207/s15327906mbr2504_4

Running Head: BULLYING, MORAL DISENGAGEMENT, PERSONALITY AND FAMILY FUNCTIONING

- Kochanska, G. (2002). Committed compliance, moral self and internalization: a mediation model. *Developmental Psychology, 38*, 339-351. doi: 10.1037/0012-1649.38.3.339
- Kokkinos, C. M., Voulgaridou, I., & Markos, A. (2016). Personality and relational aggression: Moral disengagement and friendship quality as mediators. *Personality and Individual Differences, 95*, 74–79. doi: 10.1016/j.paid.2016.02.028
- Kohnstamm G. A., Halverson C. F., Mervielde I., & Havill, V. L. (1998). *Parental descriptions of child personality: Developmental antecedents of the Big Five?* LEA, Mahwah.
- Mazzone, A., Camodeca, M. & Salmivalli, C. (2016). Interactive effects of guilt and moral disengagement on bullying, defending and outsider behavior. *Journal of Moral Education, 45*, 419-432, doi: 10.1080/03057240.2016.1216399
- Menesini, E., & Camodeca, M. (2008). Shame and guilt as behavior regulators: Relationships with bullying, victimization and prosocial behavior. *British Journal of Developmental Psychology, 26*, 183-196. doi: 10.1348/026151007X205281
- Menesini, E., Camodeca, M., & Nocentini, A. (2010). Bullying among siblings: The role of personality and relational variables. *British Journal of Developmental Psychology, 28*, 921-939. doi: 10.1348/026151009X479402
- Menesini, E., Camodeca, M., & Nocentini, A. (2013). Morality, values, traditional bullying, and cyberbullying in adolescence. *British Journal of Developmental Psychology, 31*, 1-14. doi: 10.1111/j.2044-835X.2011.02066.x
- Mervielde, I., De Fruyt, F. (1999). Construction of the Hierarchical Personality Inventory for Children (HiPIC). In I. Mervielde, I. Deary, F. De Fruyt, F. Ostendorf (Eds.), *Personality psychology in Europe*, Tilburg University Press, Tilburg, vol. 7, pp. 107-127.
- Mitsopoulou, E., & Giovazolias, T. (2015). Personality traits, empathy and bullying behavior: A meta-analytic approach. *Aggression & Violent Behavior, 21*, 61-72. doi: 10.1016/j.avb.2015.01.007
- Mulvey, K. L., Gönültaş, S., Goff, E., Irdam, G., Carlson, R., DiStefano, C., & Irvin, M. J. (2018, online first). School and family factors predicting adolescent cognition regarding bystander intervention in response to bullying and victim retaliation. *Journal of Youth and Adolescence*. doi: 10.1007/s10964-018-0941-3
- Murphy, T. P., Laible, D., & Augustine, M. (2017). The influences of parent and peer attachment on bullying. *Journal of Child and Family Studies, 26*, 1388–1397. doi: 10.1007/s10826-017-0663-2
- Nickerson, A. B., Mele, D., & Princiotta, D. (2008). Attachment and empathy as predictors of roles as defenders or outsiders in bullying interactions. *Journal of School Psychology, 46*, 687-703. doi: 10.1016/j.jsp.2008.06.002
- Oh, I., & Hazler, R. (2009). Contributions of personal and situational factors to bystanders' reactions to school bullying. *School Psychology International, 30*, 291-310. doi: 10.1177/0143034309106499

Running Head: BULLYING, MORAL DISENGAGEMENT, PERSONALITY AND FAMILY FUNCTIONING

- Olson, D. H. (2000). Circumplex Model of marital and family systems. *Journal of Family Therapy*, 22, 144-167. doi: 10.1111/1467-6427.00144
- Olson, D. H. (2011). FACES IV and the Circumplex Model: Validation study. *Journal of Marital and Family Therapy*, 3, 64-80. doi: 10.1111/j.1752-0606.2009.00175.x
- Olson, D. H., Sprenkle, D. H., & Russell, C. S. (1979). Circumplex Model of family system: Cohesion and adaptability dimensions, family types and clinical application. *Journal of Marital and Family Therapy*, 16, 187-189. doi: 10.1111/j.1545-5300.1979.00003.x
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Cambridge, MA: Blackwell.
- Önder, C., & Yurtal, F. (2008). An investigation of the family characteristics of bullies, victims and positively behaving adolescents. *Educational Sciences: Theory & Practice*, 8, 821-832.
- Palmer, S. B., Rutland, A., & Cameron, L. (2015). The development of bystander intentions and social-moral reasoning about intergroup verbal aggression. *British Journal of Developmental Psychology*, 33, 419-433. doi: 10.1111/bjdp.12092
- Pozzoli, T., & Gini, G. (2010). Active defending and passive bystanding in bullying: The role of personal characteristics and perceived peer pressure. *Journal of Abnormal Child Psychology*, 38, 815-827. doi: 10.1007/s10802-010-9399-9
- Pozzoli, T., Gini, G., & Vieno, A. (2012). The role of individual correlates and class norms in defending and passive bystanding behavior in bullying: A multilevel analysis. *Child Development*, 83, 1917-1931. doi: 10.1111/j.1467-8624.2012.01831.x
- Pronk, J., Olthof, T., & Goossens, F. A. (2014). Differential personality correlates of early adolescents' bullying-related outsider and defender behavior. *The Journal of Early Adolescence*, 11, 1-23. doi: 10.1177/0272431614549628
- Raine, A. (2002). Biosocial studies of antisocial and violent behavior in children and adults: A review. *Journal of Abnormal Child Psychology*, 30, 311-326. doi: 10.1023/A:1015754122318
- Rivers, I., Poteat, V. P., Noret, N., & Ashurst, N. (2009). Observing bullying at school: The mental health implications of witness status. *School Psychology Quarterly*, 24, 221-233. doi: 10.1037/a0018164
- Salmivalli, C., Lagerspetz, K., Björkqvist, K., Österman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior*, 22, 1-15. doi: 10.1002/(SICI)1098-2337(1996)22:1<1::AID-AB1>3.0.CO;2-T
- Shiner, R. & Caspi, A., (2003). Personality differences in childhood and adolescence: Measurement, development and consequences. *Journal of Child Psychology & Psychiatry*, 44, 2-32. doi: 10.1111/1469-7610.00101

Running Head: BULLYING, MORAL DISENGAGEMENT, PERSONALITY AND FAMILY FUNCTIONING

- Simpson, E. G., Vannucci, A., McCauley Ohannessian, C. (2018). Family functioning and adolescent internalizing symptoms: A latent profile analysis. *Journal of Adolescence*, *64*, 136-145. doi: 10.1016/j.adolescence.2018.02.004
- Spriggs, A. L., Iannotti, R. J., Nansel, T. R., & Haynie, D. L. (2007). Adolescents bullying involvement and perceived family, peer and schools relations: commonalities and differences across race/ethnicity. *Journal of Adolescent Health*, *41*, 283-293. doi: 10.1016%2Fj.jadohealth.2007.04.009
- Stevens, V. Bourdeaudhuij, I., & van Oost, P. (2002). Relationship of the Family Environment to Children's Involvement in Bully/Victim Problems at School. *Journal of Youth & Adolescence*, *31*, 419-428. doi: 10.1023/A:1020207003027
- Swearer, S. M., & Doll, B. (2001). Bullying in schools. *Journal of Emotional Abuse*, *2*, 7-23. doi: 10.1300/J135v02n02_02
- Tani, F., Greenman, P. S., Schneider, B. H., & Fregoso, M. (2003). Bullying and the big five. A study of childhood personality and participant roles in bullying incidents. *School Psychology International*, *24*, 131-147. doi: 10.1177/0143034303024002001
- Valdés-Cuervo, A. A., Alcántar-Nieblas, C., Martínez-Ferrer, B., & Parra-Pérez, L. (2018). Relations between restorative parental discipline, family climate, parental support, empathy, shame and defenders in bullying. *Children & Youth Services Review*, *95*, 152-159. doi: 10.1016/j.chilyouth.2018.10.015
- Volk, A. A., Schiralli, K., Xia, X., Zhao, J., & Dane, A. V. (2018). Adolescent bullying and personality: A cross-cultural approach. *Personality and Individual Differences*, *125*, 126-132. doi: 10.1016/j.paid.2018.01.012
- Vollrath, M. E., Hampson, S. E., & Jüliusson, P. B. (2012). Children and eating: Personality and gender are associated with obesogenic food consumption and overweight in 6 to 12 year-olds. *Appetite*, *58*, 1113-1117. doi: 10.1016/j.appet.2012.02.056.
- Waasdorp, T. E., & Bradshaw, C. P. (2018). Examining variation in adolescent bystanders' responses to bullying. *School Psychology Review*, *47*, 18-33. doi: 10.17105/SPR-2017-0081.V47-1
- Wang, C., Ryoo, H. J., Swearer, S. M., Turner, R., & Goldberg, T. S. (2016). Longitudinal relationships between bullying and moral disengagement among adolescents. *Journal of Youth & Adolescence*, *46*, 1304-1317. doi: 10.1007/s10964-016-0577-0
- White, F. A., & Metawie, K. M. (2004). Parental morality and Family processes as predictors of adolescent morality. *Journal of Child & Family Studies*, *13*, 219-233. doi: 10.1023/B:JCFS.0000015709.81116.ce

Table 1

Psychometric Properties of Study Variables and Correlations among Them.

	Range	Reliability	M (SD)	Correlations							
				1.	2.	3.	4.	5.	6.	7.	
1. Bullying	00-.58	.85	.06 (.09)								
2. Defending behavior	00-.72	.82	.17 (.15)	-.25***							
3. Outsider behavior	00-.47	.67	.10 (.09)	.33***	-.16*						
4. Moral disengagement	1.15-4.22	.86	2.28 (.62)	.33***	-.21**	.29***					
5. Extraversion	57-118	.63	88.86 (12.62)	.21*	-.04	.06	.23*				
6. Benevolence	71-144	.80	109.52 (15.85)	-.20*	.25**	-.14	-.23*	.12			
7. Conscientiousness	45-112	.75	80.63 (14.37)	-.18*	.21*	.10	-.14	.00	.35***		
8. Family functioning	1.86-4.81	.83	3.82 (.56)	-.19**	.18**	-.09	-.29***	.14	.27**	.19*	

Note. Due to missing values, sample size ranges from 191 to 213 for bullying roles, moral disengagement, and family functioning, and from 115 to 119 for personality traits.

Reliability is based on the split-half method (Guttman Lambda 4 coefficient). Correlations coefficients are based on normalized data.

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

Table 2

Regression Coefficients of Personality Aspects and Family Functioning Predicting Bullying, Defending, Outsider Behavior, and Moral Disengagement.

Predictors	Bullying			Defending			Outsider behavior			Moral Disengagement		
	R^2 (ΔR^2)	β	95% CI	R^2 (ΔR^2)	β	95% CI	R^2 (ΔR^2)	β	95% CI	R^2 (ΔR^2)	β	95% CI
<i>Step 1</i>	.04 (.04)			.09 (.09**)			.07 (.07*)			.09 (.09)*		
Gender		-.13	[-.35,.07]		.31**	[.12,.49]		-.18	[-.39,.02]		-.19*	[-.37,-.00]
Age		.14	[-.07,.42]		.03	[-.19,.26]		.20*	[.00,.48]		.22*	[.04,.48]
<i>Step 2</i>	.18 (.14**)			.19 (.10*)			.12 (.05)			.29 (.20***)		
Ext		.30**	[.11,.52]		-.02	[-.20,.17]		.09	[-.12,.30]		.29**	[.11,.46]
Ben		-.17	[-.41,.03]		.26*	[.06,.47]		-.22	[-.46,-.01]		-.18	[-.37,.01]
Con		-.12	[-.36,.09]		.04	[-.17,.25]		.11	[-.11,.35]		-.15	[-.34,.04]
FF		-.08	[-.30,.12]		.10	[-.10,.29]		-.02	[-.24,.19]		-.21*	[-.39,-.03]
<i>Step 3</i>	.26 (.08*)			.27 (.08*)			.20 (.08*)			.38 (.09**)		
FF x Ext		.01	[-.20,.22]		.19	[-.00,.39]		.05	[-.16,.27]		-.31**	[-.49,-.14]
FF x Ben		-.18	[-.44,.05]		.03	[-.19,.26]		-.34**	[-.61,-.11]		.02	[-.23,.18]
FF x Con		.35**	[.15,.67]		-.23*	[-.49,-.01]		.29*	[.07,.60]		-.07	[-.29,.15]

Note. $N = 102$, including only children without missing values in any variable. CI = Confidence Interval. Ext = Extraversion. Ben = Benevolence. Con = Conscientiousness. FF = Family Functioning. Significance for Beta was not reported if ΔR^2 was not significant. Boys = -1; girls = +1. For clarity reasons, in steps 2 and 3, only variables entering in these steps were reported. Normalized and standardized data were used.

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

Figure 1

Interaction between Conscientiousness and Family Functioning (FF) on Bullying Behavior.

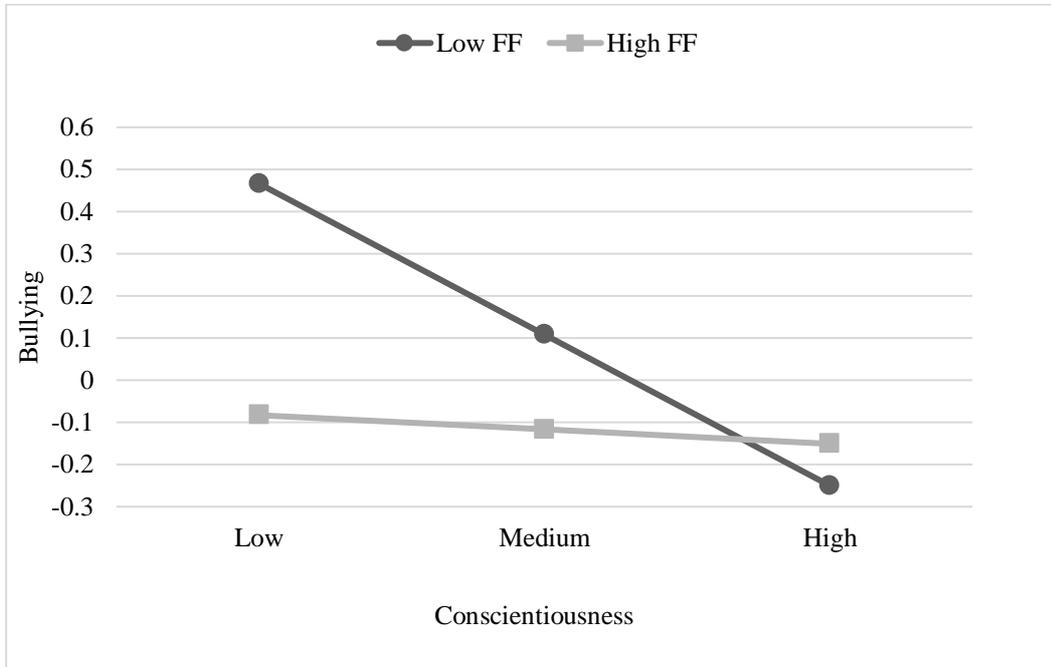
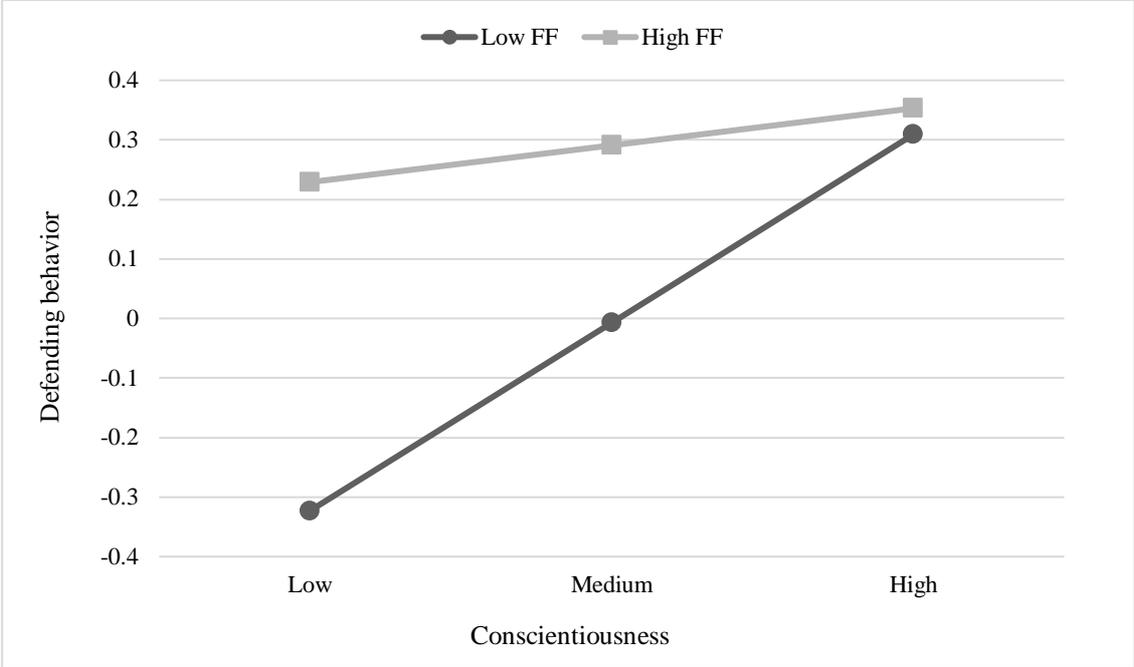


Figure 2

Interaction between Conscientiousness and Family Functioning (FF) on Defending Behavior.



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Figure 3

Interaction between Benevolence and Family Functioning (FF) on Outsider Behavior.

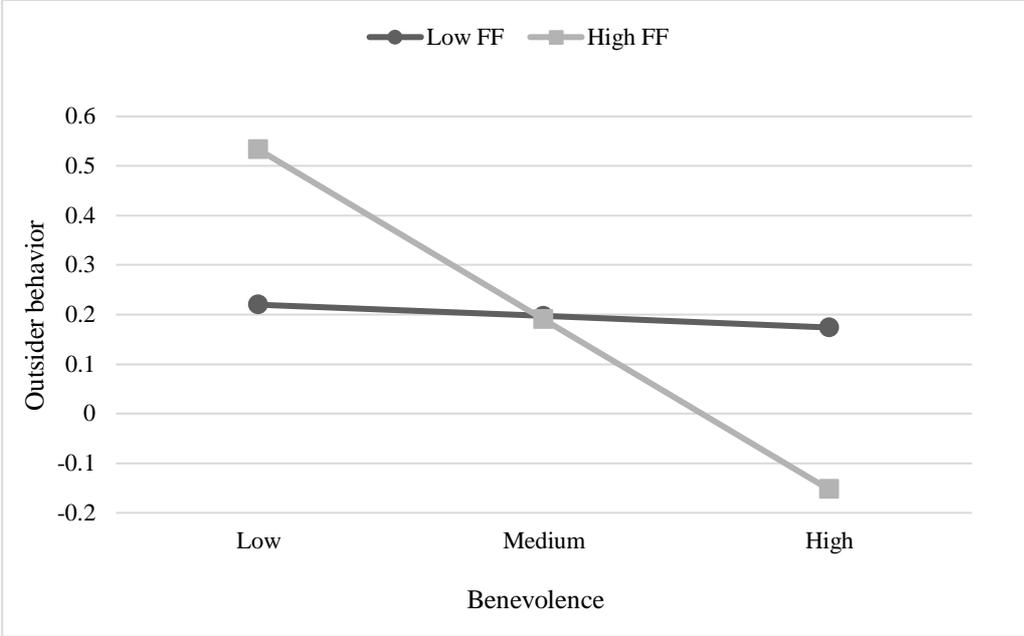
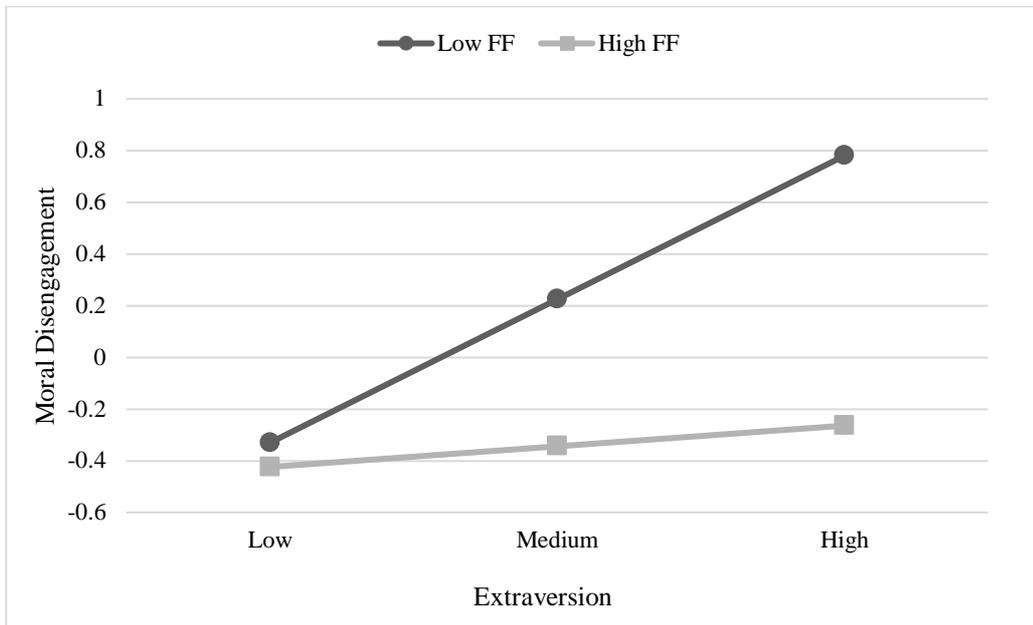


Figure 4

Interaction between Extraversion and Family Functioning (FF) on Moral Disengagement.



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