

# The Contribution of Moral Disengagement to Dating Violence and General Aggression: The Gender and Age Moderating Effects

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**Abstract.** The main aims of this study were, first to analyze the partial effects of specific mechanisms of moral disengagement (MMD) on different manifestations of general aggression and dating violence (DV) in adolescents and youths; second, to explore the moderating effects of gender and age on these relations. Moral disengagement, and different forms of aggression and DV, were evaluated in a sample of 424 participants (61.1% women) aged 15 to 25 years ( $M = 18.80$ ;  $SD = 2.69$ ). Pearson correlations and different hierarchical multiple linear regression analyses were conducted. All regressions were controlled by social desirability. MMD contributed to physical aggression with a medium effect size ( $R^2 = .22$ ) and verbal aggression with a small effect size ( $R^2 = .10$ ). Conversely, MMD did not appear to clearly contribute to DV. In conclusion, *depersonalization* and *rationalization* were the most important MMD for physical aggression, *rationalization* for verbal aggression, and *irresponsibility* for verbal-emotional violence in dating relationships. Moreover, the relationships between physical aggression and *rationalization mechanism* were significantly moderated by gender: there appears to be a stronger relationship between *rationalization* and physical aggression in boys than in girls. Moderating effects of age on these relations were not found.

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From the *Social Cognitive Theory* (Bandura 1986), individuals are thought to possess certain self-regulatory processes that maintain their behavior within their internal rules, inhibiting behaviors that are considered damaging or inhuman (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). The disengagement of self-regulatory mechanisms or moral self-sanctions are prominent influences on such behaviors, as are mechanisms of moral disengagement (hereinafter MMD: Bandura et al., 1996). MMD favor a breaching of social norms, and the disinhibition of aggressive, immoral and inhuman behaviors (Bandura, 2002). Adolescents and young people who use these MMD understand their behavior to be unrelated to their internal moral standards of misconduct or unethical behavior, and they tend to display more aggression and be more susceptible to perform DV (Obermann, 2011b). Accordingly, this study set out to analyze the relationship between MMD and different manifestations of general aggression and DV in adolescents and young adults, also examining the moderating effects of gender and age on these relationships.

Moral disengagement include a series of mechanisms described for Bandura and colleagues (1996):

a) *moral justification* (immoral acts or detrimental conduct are made acceptable by portraying them in the service of higher moral purposes); b) *euphemistic labeling* (injurious conduct or immoral activities are made benign through sanitized and convoluted verbiage); c) *advantageous comparison* (one's injurious conduct can seem benevolent or less harmful compared to other people's conduct); d) *displacement of responsibility* (responsibility for one's harmful conduct or transgressions can be ascribed to others or the circumstances because of situational pressures or other people's demands); e) *diffusion of responsibility* (individuals are able to diffuse or disclaim personal responsibility when a group are engaging in the same injurious behavior); f) *distortion of consequences* (people can legitimate one's transgressions or immoral acts by minimizing or disregarding the harmful consequences of one's actions); g) *dehumanization* (self-censure reactions can be disengaged or blunted by viewing victims as subhuman creatures unable to experience normal or real feelings and not deserving to be treated as human beings); and h) *attribution of blame* (victims get blamed for bringing

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suffering on themselves and for provoking one to behave immorally or violent toward them).

Evidence for the effects of MMD on physical violence has come from longitudinal (Hyde, Shaw, & Moilanen, 2010; Paciello, Fida, Tramontano, Lupinetti, & Caprara, 2008) and cross-sectional (Bandura et al., 1996; Oberman, 2011a, 2011b) studies carried out on community-based samples of adolescents. Longitudinal studies identified significant positive associations between MMD and general aggression, as well as the ability to predict physical, psychological, relational aggression, and anti-social behavior. In a longitudinal study Paciello et al. (2008) found two very relevant findings: a) moral disengagement is relatively stable during adolescence but decreased from age 14 to 20; and b) adolescents who maintain high levels of moral disengagement showed more likely aggressive and violent behavior in late adolescence. Furthermore, a growing number of cross-sectional studies on moral disengagement and various types of aggression have also showed significant relations between these two constructs (Bandura et al., 1996; Oberman, 2011a, 2011b; Rubio-Garay, Carrasco, & García-Rodríguez, 2019). However, the cross-sectional nature of these studies does not allow establishing causal relationships. Even so, there are two important gaps in these studies that need to be addressed. First, MMD remain virtually unexplored in the case of DV as opposed to general aggression and second, which MMD types have not been related directly to the physical and verbal manifestations of aggression, or to DV. In terms of the former, there are only a couple of studies that focus on the relationship between certain aspects of moral reasoning and DV (Feiring, Deblinger, Hoch-Espada, & Haworth, 2002; Rubio-Garay et al., 2019). In the first of these (Feiring et al., 2002), externalizing the responsibility for harm to others was related to men using physical aggression in dating relationships, and low levels of guilt and shame were related to the justification of sexual aggression in girls. Furthermore, a significant relationship was detected between MMD and the violence committed by males aged between 16 and 18 (Rubio-Garay et al., 2019). Indeed, the relationship between moral justification and inflicted violence was moderated by the dehumanization of the victim. Nevertheless, and despite the studies carried out to date, the MMD types that are related to the different manifestations of DV or general aggression remain to be determined, highlighting the need to clarify these specific connections.

The presence and extent of gender and age differences in the study of MMD and general aggression and DV are important factors to be considered (Archer, 2000, 2004; Bandura et al., 1996; Foshee et al., 2009; Nocentini, Menesini, & Pastorelli, 2010; Obermann, 2011a, 2011b). Boys tend to show significantly more direct aggression

than girls, especially in terms of their physical manifestations (see Archer, 2004, for a review). Moreover, some studies indicate boys have stronger MMD related to the acceptance of relationship aggression and the justification of sexual violence, and a stronger relationship between these MMD and DV (Davis, Peck, & Storment, 1993; Feiring et al., 2002; O'Keefe, 1997). In addition, many studies showed the general aggression tend to decrease as age increases in a linear way (Bongers, Koot, van der Ende, & Verhulst, 2003; Loeber & Hay, 1997), however that is not always true for dating violence. Some studies have found a curvilinear relation between age and DV, with growth in early and middle adolescence (up to 16 years), and a decrease in late adolescence after 17–18 years (Foshee et al., 2009; Nocentini, Menesini, & Pastorelli, 2010).

Considering the above, the purpose of this study was to analyze the relationships between MMD, and different manifestations of general aggression and DV, exploring the specific contribution of each MMD to these violent behaviors in adolescents and young adults of both genders. For this purpose, social desirability, thus is, the tendency of some people to respond on questionnaires in a way that they consider more socially acceptable or approved, or to present a favorable image of themselves (Ferrando & Chico, 2000; van de Mortel, 2008) should be considered. Previous studies have shown the importance of social desirability response bias in self-report research (van de Mortel, 2008), both in intimate partner violence studies in adults (Sugarman & Hotaling, 1997), and dating violence in adolescents (Fernández-González, O'Leary, & Muñoz-Rivas, 2013).

As such, we established three main objectives. First, we set out to analyze the bidirectional relationships between the different MMD types and general aggression, and with the different manifestations of DV (physical and verbal-emotional) considering the gender and age of participants. Second, we explored the partial and independent contribution of MMD to the different manifestations of general aggression and DV, controlling for the effect of social desirability. This allowed us to identify the partial effects of each MMD and consequently, the MMD that best contributes each manifestation of general aggression and DV. Social desirability was considered as covariate because it is well known that this variable is likely to be relevant to the relationship between MMD and general aggression or DV (Offenhauer & Buchalter, 2011; Rubio-Garay, Carrasco, Amor, & López-González, 2015; Shorey, Cornelius, & Bell, 2008). Finally, the third aim was to analyze the potential moderating effects of gender and age on the relationships between MMD and DV. To date, no studies have analyzed whether the MMD associated with different manifestations of aggression provide a better understanding of the role that these moral

mechanisms play in different types of aggression and violence. Indeed, defining these relationships would help establish the nomological network of DV and its different manifestations, improving the scope of these constructs.

Accordingly, the study was guided by three hypotheses: (1) MMD is significantly related to violent behavior, yet the different nature of DV and general aggression should be reflected by different associations. However, no specific pattern was hypothesized due to the absence of prior evidence of such associations; (2) Different MMD are expected to predict the different manifestations of aggression and DV, although there are no prior studies into the MMD types that might be linked to each manifestation of aggression or DV; (3) The association of MMD with the perpetration of general aggression or DV was expected to be stronger in boys than in girls. Similarly, the contribution of MMD to the violent behavior should also be stronger in boys than in girls. Due to the more complex relations between violent behavior and age it is expected to find significant moderating effects of age in a linear way between MMD and general aggression (the older the participants, the stronger the relations); and significant moderating effects of age in a curvilinear way between MMD and dating violence (stronger relations among the older participants as well as the younger).

## Method

### Participants

This study was performed on a final sample of 424 participants (38.9% boys and 61.1% girls) aged 15 to 25 years ( $M = 18.80$ ;  $SD = 2.69$ ): 54.7% between 15–18 years old, and 45.3% between 19–25 years old. The initial sample consisted of 523 adolescents and young people. Fifteen participants (2.86%) were excluded for presenting missing data (i.e., extreme scores, incomplete evaluation protocols and/or with serious errors) and 84 (16.06%) because they had not had one or more partners in the year preceding data collection. All participants were Caucasian volunteers (they were not given any form of compensation) who were students at different educational centers in Spain: 42.9% college students; and 57.1% middle school students. Regarding the type of relationship: 96.7% had maintained a heterosexual relationship; 2.1% a same-sex relationship; and 1.2% had maintained bisexual relationships. The duration of the last dating relationship in the study period was: less than a month (15.1%); between one and six months (17.7%); between six months and one year (18.6%); and over a year (48.6%). Finally, only 8.3% of participants cohabited with their partner.

### Measures

*Socio-demographic and dating relationships.* An *ad hoc* questionnaire was used to collect data on sex, age, nationality, ongoing educational studies, length of the last relationship, type of relationship and cohabitation.

*Moral Disengagement.* The Mechanisms of Moral Disengagement Scale (MMDS: Bandura et al., 1996; Spanish version, Rubio-Garay, Amor, & Carrasco, 2017) evaluates the different MMD. The Spanish version consists of 32 items that are assessed through a five-point Likert scale: from 1 = *totally disagree* to 5 = *totally agree*. The scale enables us to obtain a general composite moral disengagement score and eight partial, one for each MMD: moral justification, euphemistic labelling, advantageous comparison, displacement of responsibility, diffusion or responsibility, distortion of consequences, dehumanization, and attribution of blame to victims. In addition, there are three higher order dimensions: (a) *disengagement by depersonalization*, which involves dehumanization and blaming the victim (e.g., "Some people deserve to be treated like animals"); (b) *disengagement by irresponsibility*, which minimizes the damage done and displaces or diffuses responsibility for the aggression (e.g., "If a group decides to do something harmful together it is unfair to blame any one kid in the group for it"); and (c) *disengagement by rationalization*, which entails moral justification for the aggression, euphemistic labelling of the actions committed and distortion of their harmful consequences (e.g., "It is alright to fight to protect your friends"). For the purposes of this study, these three higher order scales have been used as representative dimensions of the set of MMD. This scale appears to be a reliable and valid instrument to evaluate moral disengagement in adolescents and young adults (Rubio-Garay et al., 2017).

For the cohort studied here, the following *Cronbach alpha* coefficients were obtained: *Moral disengagement-total* (.89); *disengagement by depersonalization* (.75); *disengagement by irresponsibility* (.74); and *disengagement by rationalization* (.81). A confirmatory factorial analysis of the Spanish version confirmed one second-order factor (moral disengagement) and the three aforementioned first-order factors. A higher score was obtained for greater moral disengagement in the total score and in the other dimensions of the MMD. The criteria and construct validity show this to be an appropriate measure.

*Aggression.* The Aggression Questionnaire (AQ: Buss & Perry, 1992; Spanish version, Andreu, Peña, & Graña, 2002) was used to assess aggressive behavior in adolescents and young adults, using two measures of aggression (physical and verbal) and two aggression-related emotions (anger and hostility). The questionnaire

consists of 29 items that are evaluated using a five-point Likert scale: from 1 = *completely false*, to 5 = *completely true*. This instrument has a high global internal consistency, both the original version ( $\alpha = .89$ ) and the Spanish version ( $\alpha = .88$ ), and a factorial analysis of the Spanish version confirmed the aforementioned tetradi-dimensional structure (Andreu et al., 2002). In the present study, only the physical (e.g., "Given enough provocation, I may hit another person") and verbal aggression (e.g., "I tell my friends openly when I disagree with them") scales were used. The general reliability of the instrument for the sample analyzed was estimated to be .89 according to the *Cronbach's alpha* coefficient, and the two subscales used in this study gave estimates of .87 and .72 for physical and verbal aggression, respectively. A higher score indicates greater aggression in the total score, and for the physical and verbal aggression scales. The validity of this measure was appropriate.

**Dating violence.** The Conflict in Adolescent Dating Relationships Inventory (CADRI: Wolfe et al., 2001; Spanish version; Fernández-Fuertes, Fuertes, & Pulido, 2006) is specifically designed to detect the existence of violence in youth dating relationships. It consists of two subscales of 25 items each, known as the committed violence and suffered violence scales, as well as another 10 items examining positive conflict resolution behaviors used as distractors (e.g., "I defended my point of view in the discussion"). It is assessed by means of a four-point Likert scale: 0 = *never*; 1 = *rarely*; 2 = *sometimes*; 3 = *frequently*. Each scale (committed violence or suffered violence) is divided into five subscales of bidirectional forms of violence: physical abuse, verbal-emotional abuse, sexual abuse, relational abuse, and threatening behavior. In this study, only two subscales of committed violence were used: physical (4 items: e.g., "I kicked, hit or punched her"); and verbal-emotional abuse (10 items, e.g., "I brought up something bad that she had done in the past"). A higher score indicates greater DV in the total score, and in the physical and verbal-emotional scales. When validated in a Spanish population (Fernández-Fuertes et al., 2006), the reliability estimated using *Cronbach's alpha* coefficient was good for both scales (committed violence,  $\alpha = .85$ ; suffered violence,  $\alpha = .86$ ). In this study, the internal consistency of committed physical and verbal-emotional abuse was .67 and .78, respectively.

**Social Desirability.** The Social Desirability Scale (SDS: Crowne & Marlowe, 1960; Spanish version; Ferrando & Chico, 2000) was designed to detect the tendency to voluntarily distort the image of oneself by the need to "dissimulate" or "make a good impression", and it is currently the most commonly used and popular tool to assess social desirability. The instrument consists of 33 items with a true/false response format (1 = *true*, 0 = *false*), some of which is reverse-scored (e.g., "sometimes I

have doubts about my ability to succeed in life"). The Spanish version (Ferrando & Chico, 2000) displays acceptable reliability ( $\alpha = .78$ ) and the global internal consistency for the sample under study was .76. A higher total score indicates greater social desirability.

### Procedure

The sample was obtained by incidental non-probability sampling between students of public and private middle teaching schools of Cuenca and Madrid, as well as university students at the University of Castilla La Mancha. In this way, the representativeness of the sample was increased by belonging to different sociodemographic places and environments.

The assessment was carried out on groups of 25–30 students that agreed to participate in the study, and it was performed by three researchers experienced in studies of aggression and violence. Prior to the evaluation, the participants were given an explanation on the overall aim of the study and some general instructions to complete the test booklets. The time required to complete the evaluation protocols varied between 45 and 60 minutes.

The study met the recommendations and requirements of the Bioethics Committee at our Institution and the Ethical Principles of the American Psychological Association. Participation was voluntary, and the anonymity of the data was guaranteed throughout. All participants provided their informed consent prior to entering the study and in the case of minors, this was given by their parents, guardians or legal representatives.

### Statistical Approach

Pearson correlation coefficients for the total sample were examined to assess the associations between the main study variables. The Cohen's effect size (ES) was considered as a measure of the magnitude of these correlations.

Different hierarchical multiple linear regression analyses were carried out to examine the partial and independent effects of the three MMD (*depersonalization*, *irresponsibility* and *rationalization*) on the dimensions of the AQ (physical and verbal aggression) and CADRI (physical and verbal-emotional abuse). In addition, the moderating effects of gender and age were also analyzed. All these analyses were controlled by social desirability. *A post hoc* analyses were performed to interpret the significant interactions. Simple regression analyses were carried out separately for boys and girls in order to check whether there were significant differences in their respective beta values when confidence intervals (CIs) were considered. A multiple R-squared parameter was also examined to assess the ES.

The missing dataset ( $n = 99$ , 18.1%) was previously analyzed. The Little's MCAR test on the missing data was not significant ( $\chi^2 = 5.73$ ,  $gl. = 11$ ,  $p = .89$ ) indicating a random pattern. All statistical analyses were performed using SPSS for Windows, version 19.0, including the PROCESS commands for simple moderation analysis (Hayes, 2013).

## Results

### Correlations between MMD and violent behavior

To address our first hypothesis, we tested the relationships between MMD and violent behavior in the total sample. The correlation between each MMD and the AQ (physical and verbal aggression) was statistically significant ( $p < .01$ ), with a medium ES for all items of the AQ (range of  $r$  between .30 and .49) except for "rationalization and physical aggression" ( $r = .55$ ), which was a large ES. By comparison, only the mechanism of *irresponsibility* was significantly correlated with physical ( $r = .12$ ,  $p < .05$ ) and verbal-emotional ( $r = .15$ ,  $p < .01$ ) abuse in the CADRI, although with a small magnitude.

### Correlations between the MMD and violent behaviors across gender and age

In order to explore the correlations between MMD and violent behaviors, Pearson's correlations were established across genders. Overall, the three dimensions of moral disengagement and aggressive or violent behaviors established similar correlations in boys and girls (Table 1). Specifically, the correlations between the three MMD with the two dimensions of DV (physical and verbal-emotional abuse) were small in magnitude

in both boys and girls. Likewise, the magnitude of the correlations was similarly small in both genders when correlating *depersonalization* and *irresponsibility* with verbal-AQ, although it was of a medium size when correlating *rationalization* with verbal-AQ and *irresponsibility* with physical-AQ. The only gender difference was found in the correlations of *depersonalization* and *rationalization* mechanisms with physical-AQ, where a stronger correlation was observed in boys (large ES) than in girls (medium ES).

Linear versus curvilinear relations between the different types of violent behaviors and age were explored, and the linear relations were supported [ $\Delta R^2$  for age over the  $R^2$  for age on physical aggression ( $\Delta R^2 = .002$ ,  $p = .39$ ), verbal aggression ( $\Delta R^2 = .001$ ,  $p = .47$ ), physical dating violence ( $\Delta R^2 = .006$ ,  $p = .11$ ) and verbal emotional dating violence ( $\Delta R^2 = .005$ ,  $p = .12$ ) was not significantly higher]. Age was negative and significantly related to physical and verbal aggression. However, no significant relations were found between age and dating violence. In addition, age and the three MMDS were also negative and significantly related.

### Hierarchical regression analyses of MMD on general aggression

In the two dimensions assessed, verbal and physical aggression, the models gave significant results with regards the AQ scores (see Table 2): physical aggression  $F(5, 418) = 53.16$ ,  $p < .001$  and verbal aggression  $F(5, 418) = 27.93$ ,  $p < .001$ . Specifically, the *rationalization* mechanism was a significant predictor of the two dimensions (physical and verbal scores), while the *depersonalization* mechanism significantly predicted only the physical aggression score. By contrast, the *irresponsibility* mechanism did not predict physical or verbal

**Table 1.** Descriptive statistics and Pearson correlations between all the variables studied across gender

	1	2	3	4	5	6	7	8	9
1. AQ: Physical aggression	----	.435**	.274**	.253**	.391**	.300**	.386**	-.262**	-.408**
2. AQ: Verbal aggression	.531**	----	.089	.215**	.271**	.287**	.356**	-.221**	-.353**
3. CADRI: Physical abuse	.118	-.037	----	.484**	.120	.153*	.171**	.048	-.258**
4. CADRI: Verbal-emotional abuse	.307**	.164*	.366**	----	.125*	.204**	.218**	-.039	-.318**
5. MMDS: Depersonalization <sup>a</sup>	.498**	.284**	.140	.147	----	.441**	.602**	-.238**	-.216**
6. MMDS: Irresponsibility <sup>a</sup>	.382**	.295**	.149	.181*	.588**	----	.549**	-.258**	-.184**
7. MMDS: Rationalization <sup>a</sup>	.585**	.445**	.128	.178*	.631**	.565**	----	-.333**	-.295**
8. Age	-.250**	-.281**	.103	.052	-.198*	-.269**	-.435**	----	.166**
9. Social desirability	-.361**	-.372**	-.143	-.310**	-.265**	-.254**	-.333**	.037	----
$M^a$	18.40	13.67	0.39	7.60	14.54	24.64	25.24	18.88	15.76
$SD^a$	7.42	3.74	1.07	5.04	5.45	7.07	7.26	2.70	4.96

Note: AQ = Aggression Questionnaire; CADRI = Conflict in Adolescent Dating Relationships Inventory; MMDS = Mechanisms of Moral Disengagement Scale (Spanish version)

<sup>a</sup>= Age mean, and standard deviation have been obtained for the total sample. Below diagonal 'boys' ( $n = 165$ ), above diagonal 'girls' ( $n = 259$ )

\* $p \leq .05$ ; \*\* $p \leq .01$

**Table 2.** Hierarchical regression analyses predicting committed aggression and dating violence through moral disengagement mechanisms

Predictors	AQ: Aggression						CADRI: Dating violence					
	Physical			Verbal			Physical			Verbal-emotional		
	$\beta$	$R^2_a$	$\Delta R^2$	$\beta$	$R^2_a$	$\Delta R^2$	$\beta$	$R^2_a$	$\Delta R^2$	$\beta$	$R^2_a$	$\Delta R^2$
Step 1 (Constant)	(27.65)	.15	.15**	(18.06)	.13	.13**	(1.05)	.03	.03**	(12.09)	.07	.07**
Social Desirability	-.39**			-.36**			-.19**			-.28*		
Step 2 (Constant)	(10.64)	.37	.22**	(11.87)	.23	.10**	(.79)	.03	.00	(10.95)	.08	.01
Depersonalization <sup>a</sup>	.21**			.00			-.00			-.04		
Irresponsibility <sup>a</sup>	.01			.08			.10			.14*		
Rationalization <sup>a</sup>	.33**			.28**			-.03			-.04		
Step 3 (Constant)	(13.00)	.41	.04**	(12.25)	.23	.01	(.31)	.07	.05**	(8.74)	.15	.08**
Depersonalization*Gender	.06			.19			.02			-.05		
Irresponsibility*Gender	.26			.10			.04			.10		
Rationalization*Gender	-.47*			-.25			.15			.26		
Depersonalization*Age	-.16			-.73			-.13			-.14		
Irresponsibility*Age	-.35			-.15			.39			.62		
Rationalization*Age	.30			.49			-.02			-.35		

Note: CADRI = Conflict in Adolescent Dating Relationships Inventory; AQ = Aggression Questionnaire

<sup>a</sup>= Subscale of MMDS-S (Mechanisms of Moral Disengagement Scale-Spanish version); Gender = '1' boys, '2' girls

\* $p \leq .05$ ; \*\* $p \leq .01$

aggression in the AQ. The MMD explained 22% of the variance in the physical aggression dimension (medium ES) and 10% of the variance in the verbal aggression dimensions (small ES). Furthermore, the variable social desirability, have notable effect for the dimensions of the AQ. Specifically, having a lower score in terms of social desirability had a percentage of explained variance of 15% for the physical aggression dimension and 13% for the dimension of verbal aggression.

Finally, the analyses of interactions between the three MMD and gender showed one significant interaction (Step 3) between gender and *rationalization* ( $\beta = -.47$ ,  $p < .05$ ). The effect of this interaction explains an additional 4% of the variance in the physical aggression of adolescents. A *post hoc* analysis of the interaction between gender and *rationalization* indicated that the contribution of *rationalization* to physical aggression was significantly higher in boys ( $\beta = .62$ ,  $p < .001$ , 95% CI [.49, .75]) than in girls ( $\beta = .38$ ,  $p < .001$ ; 95% CI [.26, .50]). The age of participants was not a significant moderator between the three MMD and the general aggression.

#### Hierarchical regression analyses of 10% MMD on DV

With respect to the DV scores obtained with the CADRI, the two multiple regression models significantly predicted the score of the two CADRI dimensions selected (the committed violence subscales): physical abuse,  $F(5, 418) = 5.61$ ,  $p < .001$ ; and verbal-emotional abuse,  $F(5, 418) = 9.10$ ,  $p < .001$ . The *irresponsibility* MMD was

the only significant predictor of the verbal-emotional abuse dimension (Table 2), whereas no MMD significantly made an independent contribution to the physical abuse dimension. Moreover, social desirability was a variable that significantly affected the CADRI dimensions. Specifically, having a lower score in terms of social desirability had a percentage of explained variance of 3% (medium ES) for the physical abuse dimension of the CADRI, while having a lower score in terms of social desirability had a percentage of explained variance of 7% (medium ES) for the verbal-emotional abuse dimension. Finally, the data obtained from the models indicate that gender and age were no significant moderators between the three MMD and the dating violence.

#### Discussion

This study is one of the few studies that analyses the associations between the different MMD types and the physical and verbal manifestations of general aggression and DV, considering gender and age as moderators. Following the three hypotheses formulated while the results fully support the first of these, they offered partial support for the second and third hypotheses. As far as the first hypothesis is concerned, the results show that significant associations exist between MMD and the violent behavior of adolescents, both boys and girls. The findings reveal a significant association between the different MMD types (*disengagement by depersonalization*, *disengagement by irresponsibility* and *disengagement*

by rationalization) and the different manifestations of aggression and DV. As expected, a different pattern of associations was found for aggression versus DV particularly, in terms of the physical and verbal manifestations after controlling for social desirability of the adolescents and young adults: the aggressive behaviors tended to associate more strongly with MMD than the DV behaviors in terms of ES, especially for the physical manifestations of aggression. The significant relationships between MMD and the violent behaviors of adolescents were consistent with previous studies of aggression (Bandura et al., 1996; Hyde et al., 2010; Paciello et al., 2008), and of DV in adolescents and young adults (Feiring et al., 2002; Rubio-Garay et al., 2019). In accordance with these findings, adolescents involved in episodes of abuse and harassment among peers (e.g., bullying) exhibit high levels of MMD (Obermann, 2011a, 2011b). However, general aggression and DV have not previously been compared in the same sample. Our results show that the associations between MMD and DV were of less strength than the relationships between MMD and general aggression, although we cannot fully explain this difference. We speculate that DV is more independent or less closely related to socio-moral control mechanisms than general aggression, and that distinct mechanisms may control the different manifestations (physical versus verbal) of aggressive behavior. Given the cognitive-social nature of moral disengagement, MMD are likely to be more strongly related to general aggression than to DV, probably because general aggression, especially physical aggression, is more socially condemned than DV, at least in patriarchal societies such as in Spain. Moreover, instrumental aggression (conceived as a "cold", calculated and premeditated behavior, as evaluated in this study) may involve more cognitive resources (i.e.: MMD) than DV (closer to the hostile, unplanned or impulsive aggression), which is mainly motivated by a desire to harm your partner (DeWall, Anderson, & Bushman, 2012).

With regards the second hypothesis tested, certain MMD could fully predict general aggression but only partially predict DV. MMD were able to predict the violent behavior of adolescents and young adults after controlling for social desirability. Moreover, a different pattern of MMD was found for physical and verbal aggression, whereby both mechanisms of *depersonalization* (i.e.: dehumanization of the victim and attribution of blame to the victim) and *rationalization* (i.e.: moral justification of aggression and minimization/distortion of its consequences) had significant effects on physical aggression, only *rationalization* made a significant contribution to verbal aggression. In addition, only verbal-emotional DV and not physical DV was exclusively affected by *irresponsibility* (advantageous comparison,

displacement, diffusion of responsibility), and no MMD appear to have any significant effect on physical DV. These data are consistent with earlier studies where *rationalization* is seen to be a mechanism by which aggression can be justified and its harmful consequences minimized or distorted (Bandura, 2002; Bandura et al., 1996). The stronger influence of mechanisms of *depersonalization* on physical aggression may be due to the serious manifestations of physical aggression, since perpetrators of physical aggression require a greater dehumanization and less empathy than those who manifest verbal aggression. Such mechanisms of *depersonalization* involve a dehumanized perception of the victim and the attribution of blame to the victim rather than other more independent moral mechanisms of the victim that operate in domains distinct to those in the locus of the recipient of the action (i.e.: the behavioral locus, action locus and outcome locus), for example *irresponsibility* (advantageous comparison, displacement of responsibility and diffusion of responsibility) or *rationalization* (moral justification, euphemistic labelling and distortion of consequences: Bandura, 2002).

Regarding *irresponsibility* as a predictor of verbal DV, of the few studies that have focused on the relationship between moral reasoning and DV to date, one showed that men who displace responsibility for the damage inflicted on others are more likely to use physical aggression in their dating relationships (Feiring et al., 2002). In no studies is there a clear MMD that predicts physical DV. We speculate that the emotional bond established between partners plays a protective role against dehumanization. This could also reflect, the independence of the socio-moral control mechanisms and the weaker socio-moral censure from patriarchal societies to this particular type of violence, as we suggested previously.

Considering all MMD as predictors of violent adolescent behavior, the greatest proportion of the variance explained by the MMD was for general aggression and not DV. This stronger contribution of MMD to aggressive behavior is consistent with a meta-analysis on a global sample of 17,776 individuals in the 8–18 age range (Gini, Pozzoli, & Hymel, 2014). The more significant relationships between physical aggression and MMD, as well as the larger number of significant MMD that predict this behavior (i.e.: two of the three MMD), reveals the seriousness of such aggressive manifestations. Thus, inflicting physical aggression not only requires more intense levels of moral disengagement but also, a combination of different mechanisms acting in synergy to aggravate violent manifestations (disengagement by depersonalization and disengagement by rationalization). The more primary and maladaptive nature of physical aggression during advanced stages of development (Brame, Nagin, & Tremblay, 2003) could be the

basis of the more intense contribution of MMD to physical manifestations of aggression rather than verbal or emotional aggression.

The data also in part supported the gender differences proposed in the third hypothesis. According to the correlations between MMD and violent behaviors in either gender, mechanisms of *depersonalization* and *rationalization* were more strongly associated to physical-aggression in boys than in girls. By contrast, no gender differences were found for any type of DV. Indeed, as expected the regression analysis showed that gender moderates the relationships between MMD and violent behavior, although this was only true for *rationalization* and physical aggression in the AQ. Thus, *rationalization* mechanisms had a significantly stronger effect on boys' physical aggression than on that of girls, and no other relationships between MMD and violent behaviors were significantly moderated by gender. These findings are consistent with other studies where stronger relationships between MMD and physical aggression were found in boys than in girls (Bandura et al., 1996; Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001; Obermann, 2011b; Rubio-Garay, Carrasco, & Amor, 2016). However, these results do not support a moderating gender effect between MMD, such as tolerance to aggression and justification of sexual violence in dating relationships (Davis et al., 1993; Feiring et al., 2002; O'Keefe, 1997).

As far as age is concerned, age was also negatively related to general aggression but not to DV. These results are consistent with other studies showing that general aggression decreases with age in a linear way (Bongers et al., 2003; Gerbino, Caprara, & Caprara, 2006). On the contrary it was not consistent for the research that has showed a curvilinear relation between dating violence and age (Foshee et al., 2009; O'Leary, 1999). The expected moderating effects of age on the relations between MMD and violent behaviors were not confirmed. These relations seem to keep similar from 15 to 25 years old. The cognitive complexity and emotional changes associated with the young adults versus adolescents (Nocentini et al., 2010) probably are not reflected in the effects of MDD on violent behaviors.

Finally, although it was not our initial aim to focus on the variable social desirability, it was included as covariate. Our results showed the relevance of this variable as a significant covariable negatively related to all kind of adolescent violent behaviors. In addition, this result showed how social desirability contributes to the distortion of the self-image, producing responses considered as socially acceptable or expected (Shorey et al., 2008), potentially masking the true responses. Consistently with some authors social desirability may also be considered as a personality style/trait reflecting a need for approval that takes individuals to engage

in a smaller number of aggressive acts (Fernández-González et al., 2013).

This work has some limitations, not least the fact that the cross-sectional nature of the data does not allow us to infer causality. In addition, the self-reported assessment of the variables under study may increase the likelihood that some of the significant associations obtained could be attributed to shared method variance.

The predictive value of moral disengagement on the violent behavior of adolescents and youths should be analyzed in future studies through longitudinal designs where predictive variables precede the criteria variables. Future studies should also include other sources of information, such as that provided by peers, parents or victims, providing information from an external or multi-informant perspective.

This study has some clinical and policy implications, especially regarding the effects of certain socio-cognitive and moral processes on attitudes and violent behavior in adolescents and youths. First, there is a need to test particular MMD in order to identify potential risk factors of violent behavior in adolescents and young people. Second, it would be advisable to introduce the concept of moral disengagement in school prevention and intervention programs for dating violence and general aggression. In this way, boys and girls would be able to recognize the use of different MMD in their own daily practice (Obermann, 2011a). The findings of the present study support programs that include strategies to discourage rationalization and depersonalization mechanisms to decrease the general aggression, and mechanisms of irresponsibility to reduce the DV. These results recommend prevention programs that contribute to moral development, increased empathy and personal responsibility. Thus, teaching of appropriate cognitive strategies and behavioral techniques in educational settings could help to deal with these moral disengagement processes.

In summary, this study highlights the important role of some cognitive-moral distortions, and certain beliefs and attitudes, which legitimize violent behavior in adolescents.

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