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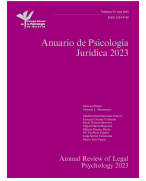
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## Association between Callous-Unemotional Traits, Empathy, and Moral Disengagement Mechanisms in Juvenile Offenders

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### ABSTRACT

There are few studies that explore the association between cognitive and affective factors according to gender and types of crime in juvenile offenders. This study analyzed the association between callous-unemotional traits, empathy, and moral disengagement mechanisms according to gender differences and criminal typology in 149 adolescents ( $M = 17.72$  years,  $SD = 1.34$ ) prosecuted by the Criminal Responsibility System (SRPA) and placed in custodial measures. The 81.2% were males and 18.8% were females. This was a quantitative, non-experimental, cross-sectional, comparative-correlational study. The Scale of Moral Disengagement Mechanisms, the Inventory of Callous-Unemotional Traits and the Interpersonal Reactivity Index were used. It was found that males presented higher scores in the mechanisms of moral disengagement and uncaring. Females presented higher scores in total empathy and empathic concern. Adolescents with felonies had higher scores on attribution of blame. Moral disengagement mechanisms correlated positively with callous-unemotional traits and personal distress. Empathic concern and perspective taking correlated negatively with moral disengagement. In adolescents with history of felonies, moral disengagement presented stronger associations with callous-unemotional traits. In non-violent offenses, the strongest associations were with uncaring, and in trespassing they were with personal distress. Results are discussed according to empirical evidence and implications for intervention.

### La asociación entre los rasgos insensibles-no emocionales, la empatía y los mecanismos de desconexión moral en adolescentes infractores de la ley

### RESUMEN

Son escasos los estudios que exploran la asociación entre factores cognitivos y afectivos según el sexo y los tipos de delito en adolescentes infractores. Este estudio analizó la asociación entre los rasgos insensibles-no emocionales, la empatía y los mecanismos de desconexión moral según las diferencias por sexo y tipología delictiva en 149 adolescentes ( $M = 17.72$  años,  $DE = 1.34$ ) judicializados por el Sistema de Responsabilidad Penal (SRPA) y puestos en medidas privativas de la libertad. El 81.2% eran hombres y el 18.8% mujeres. Se trató de un estudio cuantitativo, no experimental, transversal y alcance comparativo-correlacional. Se utilizó la Escala de Mecanismos de Desconexión Moral, el Inventario de Rasgos Insensibles no Emocionales y el Índice de Reactividad Interpersonal. Se encontró que los hombres presentaron puntuaciones más altas en los mecanismos desconexión moral y el descuido interpersonal. Las mujeres presentaron puntuaciones más altas en empatía total y preocupación empática. Los jóvenes con delitos violentos presentaron puntuaciones más altas en atribución de la culpa. Los mecanismos de desconexión moral se correlacionaron positivamente con los rasgos insensibles no emocionales y el malestar personal. La preocupación empática y la toma de perspectiva correlacionaron negativamente con la desconexión moral. En los adolescentes con delitos violentos la desconexión moral presentó una mayor asociación con los rasgos insensibles no emocionales. En los delitos sin violencia las asociaciones más fuertes fueron con el descuido interpersonal y en delitos contra la propiedad las correlaciones más fuertes fueron con el malestar personal. Se discuten los resultados de acuerdo con la evidencia empírica y las implicaciones para la intervención.

#### Palabras clave:

Desconexión moral

Infractor

Insensibilidad

Empatía

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Adolescence is characterized as a period of increased vulnerability to risk-taking due to a disjunction between novelty and sensation seeking, which often increases along puberty, and the development of self-regulatory competence that does not fully mature until early adulthood. Additionally, adolescents tend to easily question social and moral norms and in some cases violate them and get involved in criminal behavior. During adolescence the rates of antisocial behavior reach their peak (Billen et al., 2022; Hirschi & Gottfredson, 1983; Piquero, 2008; Piquero et al., 2003). A possible factor that explains this relationship between adolescence and transgressive behavior is given by the way they perceive antisocial acts as acceptable and justifiable (Gómez & Durán, 2021a, 2021b).

Steinberg (2004) argues that age differences in cognitive processes relevant to perceiving and assessing risks do not explain why adolescents take more risks than adults. In contrast, the author argues that adolescence is a period of greater psychosocial vulnerability for risk-taking behavior. This is because at this stage there is a lower perception of risk and assessment of the consequences of actions, a tendency toward immediate gratification and novelty seeking, and low emotional self-efficacy for self-regulation. Besides, adolescents who are exposed to violent environments are more likely to make more risky and immediate decisions and are less committed to their self-care and own well-being (Gómez & Durán, 2021b; Restrepo, 2014).

On the other hand, child maltreatment and early physical and emotional abuse are related to a greater probability of violent behavior in adolescence (Gajos et al., 2022; Hodgdon, 2009). Prolonged permanence in violent scenarios and daily exposure to violence promotes in adolescents the naturalization of aggression and the justification of harm. Children who experience early physical and emotional abuse show serious behavioral problems before adolescence, increasing their intensity and danger throughout life (Frick & Loney, 1999). Not only do they present higher levels of aggressiveness, they also have cognitive, neuropsychological alterations, greater impulsivity and social alienation, high traits of emotional callousness such as lack of empathy, guilt, and little or no self-care behaviors (Gallego-Matellán et al., 2019).

### **Moral Disengagement and Callous-unemotional Traits in Adolescents with Delinquent Behaviors**

The social cognitive theory states that moral disengagement facilitates the commission of all types of misconduct, from the least serious to the most morally serious, such as genocide. Bandura (1990, 1991, 1999, 2002, 2016) argues that people are able to keep their behavior consistent with the moral principles and norms of a society, which facilitates moral agency and self-regulation. However, self-regulatory capacities can be deactivated and lead to behaviors contrary to individual and collective values. Thus, individuals may selectively deactivate the moral self-regulation and control system to circumvent self-sanctions, maintain a positive moral image, and resolve the dissonance between moral beliefs and moral actions, namely what they believe is the right thing to do and what they actually do.

Moral self-sanctions can be selectively prevented through the use of socio-cognitive strategies that allow people to restructure the understanding of their immoral, violent, or inhumane behavior in order to consider it acceptable, justified, or consistent with individual and collective moral standards (Bandura, 1990, 2002; D'Urso et al., 2018; Gómez et al., 2021; Petruccioli et al., 2017). These socio-cognitive strategies operate by reconstructing the meaning of harmful behaviors (behavioral locus), minimizing personal responsibility for antisocial acts (agency locus), ignoring the harmful consequences resulting from the harmful behavior (outcome locus), and blaming and dehumanizing the victim (receiver locus).

At the behavioral level, aggressive and harmful behavior can be made acceptable, less repugnant, and even benevolent using

the socio-cognitive strategies of moral justification, euphemistic labeling, and palliative comparison. At the level of agency, moral disengagement mechanisms operate to obscure or deny personal responsibility for the harm the person causes. This occurs through displacement and diffusion of responsibility. At the outcome level, the minimizing of the consequences mechanism allows for the avoidance of self-determination. This cognitive strategy involves changing the perception of the consequences of the behavior, minimizing, ignoring, or misinterpreting the harm caused. The distortion of consequences is common in hostile adolescents who usually consider their behavior as acceptable. They even examine the consequences of their behavior as positive and necessary. In addition, distortion may involve active efforts to discredit evidence of the harm they cause.

Finally, at the level of the victim, there are the mechanisms of dehumanization and attribution of blame. Dehumanization strips people of their human qualities by considering them as subhuman objects and the attribution of blame allows them to perceive aggressive actions as justifiable reactions resulting from the very purpose of their behavior. These mechanisms could be learned and reinforced during development through the observation of social interactions with others and the direct experience of the subject with aggressors in his environment. The repetition of transgressive acts leads to the routinization of the process of moral disengagement (Bandura, 1991) and, consequently, to a general tolerance of immoral acts or a frequent attitude of rejection or uncaring towards social norms and values.

There is consistent empirical evidence suggesting that moral disengagement is associated with the emergence and maintenance of antisocial behaviors in adolescence (Bandura, 1999; Bandura et al., 2001; Gini, 2006; Pelton et al., 2004; Shulman et al., 2011), and is a predictor of future delinquent behaviors in juvenile offenders (Mulvey et al., 2004). Chronically aggressive adolescents show higher levels of disengagement (Paciello et al., 2008). It has also been found that the presence of callous-unemotional traits has a predictive effect on moral disengagement, and plays a mediating role in the commission of acts of aggression and bullying (Paciello et al., 2020). In this regard, the meta-analytic study by Paciello et al. (2020) examined 13 empirical studies and found that callous-unemotional traits are related reciprocally and longitudinally to moral disengagement during adolescence. Specifically, adolescents with disruptive behavior disorders, callous-unemotional traits, and moral disengagement appear to operate jointly in affective and cognitive processes that promote and chronicle disruptive and antisocial behaviors during development.

Because of these characteristics, these adolescents represent the largest subgroup at risk of becoming lifetime offenders (Gibbon et al., 2020). Shulman et al.'s (2011) longitudinal study of the relationships between moral disengagement in serious juvenile offenders notes that callous-unemotional traits represent an impediment to the development of moral awareness, leading to disrespect for social norms and crime. The likelihood of youth with callous-unemotional traits to show accepting attitudes toward immoral, violent, or inhumane acts is quite high, especially when they employ cognitive strategies to justify transgressive behavior.

Most of the studies on moral disengagement in children and adolescents with disruptive behaviors have been conducted with a male population. This may be due to the low case rate of these behaviors in girls and adolescent females, or because females exhibit fewer moral disengagement attitudes (Perren & Gutzwiller-Helfenfinger, 2012).

### **Callous-unemotional Traits in Severe Behavioral and Delinquency Problems**

Callous-unemotional traits refer to the specific absence of guilt, restricted display of emotions, superficial affect, lack of empathy, and poor emotional and behavioral regulation (Frick, 2004; Frick et al.,

2003; Frick et al., 2005; Frick et al., 2014). Several studies point out that callous-unemotional traits are associated with conduct problems and predict the severity and stability of proactive aggression, antisocial behaviors, and delinquency in youth (Blader et al., 2013; Enebrink et al., 2005; Frick, 2009; Frick et al., 2003; Frick et al., 2005; Frick et al., 2014; McMahon et al., 2010).

Children and adolescents with severe conduct problems who also display callous-unemotional traits tend to seek more thrills and novelty in risky experiences, are less sensitive to punishment cues, and react less to threatening stimuli (Fisher & Chamberlain, 2000; Loney et al., 2003; Northam et al., 2020; Vinet, 2010; Woodworth & Waschbusch, 2008). The sample also showed low capacity in emotional responsiveness to others' cues of help, distress, or pain (Cheng et al., 2012). They also used violence and aggression as a justifiable form of social conflict resolution and goal attainment (Cabrol & Székely, 2012; Paciello et al., 2020; Pardini, 2011).

Most studies focused on analyzing the direct effect of callous-unemotional traits on aggressive and antisocial behavior in adolescents (Larsson et al., 2008), and studies analyzing the association of callous-unemotional traits and moral disengagement in the prediction of externalizing behaviors are scarce (Paciello et al., 2020). Additionally, much of the research literature on these associations has focused predominantly on male participants, probably due to a higher prevalence of delinquent behaviors and callous-unemotional traits in males (Larsson et al., 2008). However, other research has found gender differences related to the relative contribution of shared genetic and socio-environmental influences, suggesting that callous-unemotional traits in boys are more heritable than in girls (Fontaine et al., 2010; Viding et al., 2005).

### **Empathy as a Moderator of Moral Disengagement and Emotional Callousness**

Empathy has been understood as an affective response to another person's emotional condition, and promotes prosocial behaviors of helping, solidarity, compassion, and support toward others (Eisenberg et al., 1991). Empathy plays a moderating role in the associations between callous-unemotional traits and moral disengagement (Fang et al., 2020), and moderates the association between moral disengagement and cyberbullying behaviors (Bakioğlu & Çapan, 2019; Fang et al., 2020) and severe aggression (Ouvrein et al., 2018). Moral disengagement mediates between empathy and aggression (Hyde et al., 2010; Ouvrein et al., 2018). Likewise, studies suggest that perpetrators have low empathy and high moral disengagement (Wang et al., 2017; Zych & Llorent, 2018). Additional studies with adolescents have reported that moral disengagement is negatively associated with empathy, emotional self-efficacy, and prosocial tendencies, and positively associated with callous-unemotional traits (Bandura et al., 1996; Gómez & Durán, 2021b; Gómez & Narváez, 2019; Gómez et al., 2019; Muratori et al., 2017; Walters, 2017).

These findings suggest that moral disengagement and callous-unemotional traits increase expressions of aggression, externalizing and antisocial behaviors and, consequently, decrease or inhibit the willingness to experience empathy and engage in prosocial behaviors toward victims (Milone et al., 2019).

Different studies reported gender differences in moral disengagement and psychopathic traits (Perren & Gutzwiller-Helfenfinger, 2012; Risser & Eckert, 2016). Males exhibit more callous-unemotional traits, higher levels of moral disengagement, more insecure behaviors, risk-taking, and violent and non-violent delinquency than females. For males, psychopathic traits and moral disconnection predicted academic dishonesty, risky, violent, and antisocial behaviors, whereas females were less likely to adopt moral disengagement attitudes and did not provide a significant predictor effect on risky, violent, or antisocial behaviors (Risser & Eckert, 2016). In contrast, fe-

males present a greater tendency than males to show prosocial behaviors and experience affective empathy for others (Gómez & Duran, 2020; Longobardi et al., 2019; Mestre et al., 2009; Van der Graaff et al., 2014, 2018). In this regard, Jolliffe and Farrington's (2006) study with 720 adolescents found that empathy had differential effects for males and females according to the type of bullying. Low empathy was correlated with violent bullying in males and with indirect bullying in females. This tendency to externalization in males could explain the predominance of callous-unemotional traits, the use of selective moral disengagement mechanisms, and the influence they have on the maintenance of disruptive behaviors (Espejo-Siles et al., 2020).

### **The Current Study**

To our knowledge, there are no studies reporting male-female differences and associations between callous-unemotional traits, empathy, and moral disengagement in juvenile offenders. Although there are studies on violence and juvenile delinquency, little is known about the relationships between emotional, and cognitive factors that, when complementing each other, act as predictors of criminal behavior in adolescents. Moreover, in the distinction made between young people with severe problems of punishable behavior, according to gender and criminal typology, this population group is quite heterogeneous in terms of personality variables, psychosocial context, family, socio-educational, and individual development, among others, as well as the course and trajectory of their problematic behavior.

The present study examined, comparatively by gender and criminal typology, the relationships between callous-unemotional traits, empathy in its cognitive and affective domain, and the mechanisms of moral disengagement in a sample of 149 Colombian juveniles. It is considered that the analysis of the relationships between emotional and cognitive factors, according to criminal typologies and gender differences in adolescent offenders, contributes to the understanding of criminal behavior and provides evidence for the development of intervention and treatment strategies with a gender approach that lead to the social reintegration of adolescents in conflict with criminal law. In Colombia, there are no known studies that establish significant differences between the mechanisms of moral disengagement, the dimensions of empathy, and callous-unemotional traits segmented by gender and types of offenses among juvenile offenders with custodial measures.

### **Method**

A quantitative, non-experimental, cross-sectional study, with a comparative-correlational scope, was carried out.

#### **Participants**

An intentional non-probability sampling was used, which consisted of 149 juvenile offenders, who were prosecuted by the System of Criminal Responsibility for Adolescents (SRPA) and placed in custodial measures in a reeducation center in the city of Medellín (Colombia); 81.2% of the sample ( $n = 121$ ) were male and 18.8% ( $n = 28$ ) were female, with ages ranging from 15 to 23 years ( $M = 17.72$ ,  $SD = 1.34$ ); 45.6% ( $n = 68$ ) were in the 15 to 17 age range, and 53.4% ( $n = 81$ ) were between 18 to 23 years old. Regarding socioeconomic level, 30.2% of the sample ( $n = 45$ ) were from stratum 1 (very low), 60.4% ( $n = 90$ ) from stratum 2 (low), and 9.4% ( $n = 15$ ) from stratum 3 (low middle). In relation to the family typology of the adolescents, 32.2% ( $n = 48$ ) belonged to an extensive family, 24.8% ( $n = 37$ ) to a maternal single-parent family, 18.8% ( $n = 28$ ) to a mixed or reconstituted family, and 16.1% ( $n = 24$ ) to a nuclear typology.

**Table 1.** Description of the Categories and Typologies of Adolescent Offenders' Offenses

Criminal categories	<i>n</i>	%	Criminal categories	<i>n</i>	%
Crimes against persons with the use of violence	95	63.8	Crimes against life	32	21.5
			Other crimes against physical or psychological integrity	28	18.8
			Crimes associated with domestic violence	18	12.1
Crimes against persons without the use of violence	14	9.4	Crimes against sexual integrity	17	11.4
			Crimes associated with psychoactive substances	14	9.4
Property crimes	40	26.8	Aggravated and qualified robbery	40	26.8

The remaining percentage was divided into single-person (4%,  $n = 6$ ), single parent paternal (0.7%,  $n = 1$ ), spousal dyad (0.7%,  $n = 1$ ), and 2.7% ( $n = 4$ ) report no family. The time spent in the custodial measure ranged from 3 to 41 months, with a mean ( $M$ ) of 10 months ( $SD = 6.9$ ). In relation to the type of crime committed, [Table 1](#) shows the criminal categories and typology of the adolescents' crimes. The reeducation institution that provides care to the youngsters provided this information.

## Instruments

### **Mechanisms of Moral Disengagement Scale** (MMDS; [Bandura et al., 1996](#))

This scale was designed to assess moral disengagement and the effect on aggressive and antisocial behavior. The Spanish version validated by [Rubio-Garay et al. \(2017\)](#) was implemented, consisting of 32 5-choice Likert-type items (1 = *strongly disagree*, 5 = *strongly agree*). The scale yields an overall global score and eight scores for each of the eight moral disengagement mechanisms established by [Bandura \(1990, 1999, 2002\)](#): moral justification, euphemistic labeling, palliative comparison, displacement of responsibility, diffusion of responsibility, minimizing the consequences, attribution of blame, and dehumanization of the victim. The version translated and validated in Spanish with 513 adolescents reported a first- and second-order factor structure that includes the eight mechanisms of moral disengagement, which offers good fit, validity, and reliability ([Rubio-Garay et al., 2017](#)). Studies reported internal consistency rates, ranging from .68 to .93 for both the total scale and the subscales ([Bandura et al., 1996](#); [Gómez et al., 2019](#); [Gómez & Durán, 2021b](#); [Paciello et al., 2008](#)).

### **Inventory of Callous Unemotional Traits. Self-report Version** (ICU; [Frick, 2004](#))

This scale consists of 24 Likert-type items from 0 to 3 (0 = *completely false*, 1 = *partially true*, 2 = *quite true*, and 3 = *definitely true*) that assesses callous-unemotional traits and three dimensions: unemotional (UE), callousness (CA), and indifferent (UC). The inventory was translated and validated in Spanish with a sample of 324 young offenders from the juvenile justice system in Spain ([López-Romero et al., 2015](#)), and the factor structure composed of three dimensions was corroborated. The total score and the Uncaring subscale showed an adequate internal consistency ( $\alpha = .88$  and  $.82$ , respectively), whereas it was acceptable for the Callousness and Unemotional subscales ( $\alpha = .76$  and  $.78$ , respectively) ([López-Romero et al., 2015](#)).

### **Interpersonal Reactivity Index** (IRI; [Davis, 1983](#))

It is a multidimensional Likert-type scale with five response choices (1 (*does not describe me at all*) to 5 (*describes me very well*)) designed to measure the cognitive and affective factors of empathy in four dimensions: perspective taking (the ability to accept another person's point of view), fantasy (the ability to

establish identification processes with other people and imagine situations), empathic concern (ability to experience feelings before the experiences of others' pain), and emotional distress (emotional response to negative situations suffered by other people). The scale consists of 28 items divided into 7 items per dimension. The IRI scale has been translated and validated in Spanish with a sample of 1,285 adolescents, reporting a four-factor structure corresponding to the original version, a Cronbach's alpha coefficient ranging between .55 and .65 for the factors ([Mestre et al., 2004](#)).

## Ethical Considerations

In consideration with Ley 1090 of 2006 and Resolución 008430 of 1993 ([República de Colombia, Ministerio de Salud, 1993](#)), this research obeys the ethical principles of respect, privacy and dignity, ensuring the confidentiality and anonymity of the participants, as established in articles 26 and 50. Access to young people in the System of Criminal Responsibility for Adolescents (SRPA) for research is restricted by governmental institutions, a reason why this study had the governmental endorsement of the Colombian Institute of Family Welfare (ICBF) at the national level and the institution operating the service in the city of Medellín. Likewise, the Ethics Committee of the Universidad Católica Luis Amigó, Manizales, Colombia approved the research project and the measurement protocol.

## Procedure and Statistical Analysis

The information for this research was collected in person during 2020, through face-to-face meetings at the institution that operates the service. The application took between 45 and 50 minutes per group. The results of the assessment were digitized and coded in an Excel data matrix. Initially, the database was reviewed to ensure that there were no missing data or responses that did not match the items in the instruments. For the statistical analysis, the SPSS version 25 statistical package was used ([IBM Corporation, 2017](#)).

An internal consistency analysis of the scales and subscales was performed, using the omega coefficient ( $\omega$ ) ([McDonald, 1999](#)). The Kolmogorov-Smirnov test was used to determine the normality of the data. Likewise, a descriptive univariate analysis of the variables of moral disengagement, callous-unemotional traits, and empathy was performed. Once this was done, a comparative analysis of the psychological variables under study was carried out according to gender, categories, and criminal typologies. For this purpose, the nonparametric Mann-Whitney  $U$  and Kruskal-Wallis  $H$  tests were used, as well as the parametric Student's  $t$ -tests and one-factor ANOVA according to the nature of the study variables. R Studio Cloud was used to calculate the effect size of the differences found in the comparative analysis, which was estimated using the eta squared statistic ( $\eta^2$ ), in those cases in which the variables did not have a normal distribution and Cohen's  $d$  in those cases in which they did. The procedure and interpretation established by [Fritz et al. \(2012\)](#) and [Cohen \(1988\)](#) respectively were followed. Finally, a correlation analysis was performed using Spearman's rho coefficient.

## Results

Table 2 shows the descriptive and internal consistency analysis, using McDonald's omega coefficient ( $\omega$ ), of the variables of moral disengagement, insensitive-unemotional traits, and empathy in the total sample of adolescent offenders.

**Table 2.** Descriptive Statistics and Reliability of Scores Obtained on Moral Disengagement, Callous-unemotional Traits and Empathy in Adolescent Offenders

Variables	$\omega$	<i>M</i>	<i>SD</i>	<i>Me</i>	<i>Min</i>	<i>Max</i>
Moral disengagement mechanisms						
Total moral disengagement	.94	2.16	0.78	2.06	1.0	4.3
Moral justification	.81	2.58	1.04	2.50	1.0	5.0
Euphemistic labeling	.79	2.31	0.92	2.25	1.0	5.0
Palliative comparison	.84	1.86	0.97	1.50	1.0	4.8
Displacement of responsibility	.81	2.16	0.95	2.00	1.0	5.0
Diffusion of responsibility	.78	2.10	0.92	2.00	1.0	4.8
Minimizing the consequences	.81	2.09	0.91	2.00	1.0	5.0
Attribution of Blame	.81	2.19	0.99	2.00	1.0	5.0
Dehumanization	.84	2.01	1.01	1.75	1.0	4.8
Callous-unemotional traits						
Total uncaring -non - emotional traits	.86	1.26	0.31	1.25	0.3	2.0
Callousness	.81	1.34	0.47	1.30	0.3	2.5
Uncaring	.83	.94	0.58	0.88	0.0	3.0
Unemotional	.66	1.57	0.61	1.60	0.2	3.0
Empathy factors						
Total empathy	.91	3.01	0.46	3.00	1.9	4.6
Perspective taking	.81	3.16	0.69	3.14	1.0	5.0
Fantasy	.82	2.99	0.67	3.00	1.4	5.0
Empathic concern	.73	3.24	0.65	3.14	1.9	5.0
Personal distress	.78	2.65	0.66	2.71	1.1	4.6

Table 3 shows the comparative analysis by gender according to the variables of moral disengagement, callous-unemotional traits, empathy and type of crime. Statistically significant differences ( $p < .05$ ) were found between males and females. When assessing the effect size of significant gender differences, using eta squared ( $\eta^2$ ) and Cohen's *d* statistics, an intermediate to large effect size was identified (Cohen, 1988; Fritz et al., 2012).

Additionally, a comparative analysis was performed by gender segmented by crime typology and crime categories. All statistical differences ( $p < .05$ ) reported for crime typology show large effect sizes, with higher scores for males than for females. In felonies associated with domestic violence ( $n = 18$ ) no significant differences were found ( $p < .05$ ). In crimes associated with psychoactive substances ( $n = 14$ ) differences were found in total moral disengagement ( $z = -2.029$ ,  $p = .043$ ,  $\eta^2 = .29$ ), mechanisms of diffusion of responsibility ( $z = 2.207$ ,  $p = .027$ ,  $\eta^2 = .35$ ), minimizing the consequences ( $z = -2.280$ ,  $p = .023$ ,  $\eta^2 = .37$ ), dehumanization ( $z = -2.128$ ,  $p = .033$ ,  $\eta^2 = .34$ ), and the trait of carelessness ( $t = 2.367$ ,  $p = .036$ ,  $d = 1.54$ ). In crimes against sexual integrity ( $n = 17$ ), the differences were in the mechanism of moral justification ( $z = -2.435$ ,  $p = .015$ ,  $\eta^2 = .35$ ).

In crimes against life ( $n = 32$ ), differences occurred in total moral disengagement ( $z = 2.131$ ,  $p = .021$ ,  $\eta^2 = .14$ ), moral justification ( $z = -2.802$ ,  $p = .005$ ,  $\eta^2 = .245$ ), diffusion of responsibility ( $z = -2.220$ ;  $p = .026$ ,  $\eta^2 = .15$ ), total callous-unemotional traits ( $t = 2.918$ ,  $p = .027$ ,  $d = 1.56$ ) and uncaring ( $t = 2.028$ ,  $p = .043$ ,  $d = 1.1$ ).

Regarding qualified and aggravated theft ( $n = 40$ ), differences were found in total moral disengagement ( $z = -2.014$ ,  $p = .044$ ,  $\eta^2 = .101$ ), moral justification ( $z = -2.258$ ,  $p = .024$ ,  $\eta^2 = .13$ ). Finally, the typology of other crimes against property, physical integrity or psychology ( $n = 28$ ) found only one difference in moral justification ( $z = -2.542$ ,  $p = .007$ ,  $\eta^2 = .23$ ). No differences were found in the empathy variables.

The comparative analysis by gender segmented by the criminal categories showed that males evidenced higher scores than females in crimes against persons with use of violence (total  $n = 95$ ) in total moral disengagement ( $z = -3.438$ ,  $p = .001$ ,  $\eta^2 = .12$ ), moral justification ( $z = -4.447$ ,  $p < .001$ ,  $\eta^2 = .21$ ), palliative comparison ( $z = -2.992$ ,  $p = .003$ ,  $\eta^2 = .094$ ), displacement of responsibility ( $z = -2.922$ ,  $p = .003$ ,  $\eta^2 = .094$ ), minimizing the consequences ( $z = -2.266$ ,  $p = .023$ ,  $\eta^2 = .054$ ) and dehumanization ( $z = -2.872$ ,  $p = .004$ ,  $\eta^2 = .09$ ). On the contrary, females presented higher scores than males in total empathy ( $t = -2.340$ ,  $p = .02$ ,  $d = 0.63$ ).

In crimes against persons without the use of violence ( $n = 14$ ), males presented higher scores in total moral disengagement ( $z = -2.029$ ,  $p = .043$ ,  $\eta^2 = .29$ ), diffusion of responsibility ( $z = -2.207$ ,  $p = .027$ ,  $\eta^2 = .35$ ), minimizing the consequences ( $z = -2.280$ ,  $p = .023$ ,  $\eta^2 = .37$ ), dehumanization ( $z = -2.128$ ,  $p = .033$ ,  $\eta^2 = .32$ ), total callous-unemotional traits ( $t = 2.367$ ,  $p = .036$ ,  $d = 1.54$ ), and uncaring ( $t = 3.072$ ,  $p = .010$ ,  $d = 2.0$ ).

In crimes against property ( $n = 40$ ), differences were only found in total moral disengagement ( $z = -2.014$ ,  $p = .044$ ,  $\eta^2 = .101$ ) and moral justification ( $z = -2.258$ ,  $p = .024$ ,  $\eta^2 = .13$ ), with higher scores in men. The other variables did not show significant differences between males and females according to crime categories.

When assessing the effect size of significant gender differences segmented by crime typologies and categories, using eta squared ( $\eta^2$ ) and Cohen's *d* statistics, a large effect size was identified (Cohen, 1988; Fritz et al., 2012).

Table 4 shows the comparative analysis according to crime categories using Kruskal-Wallis H-tests and one-factor ANOVA according to the normality of the data. It was found that youth with crimes against other people with use of violence compared to adolescents with property crimes and without use of violence presented higher scores in attribution of blame ( $H = 6.145$ ,  $gI = 2$ ,  $p = .046$ ,  $\eta^2 = .028$ ). Adolescents with crimes without use of violence compared to crimes with use of violence and against property registered higher scores in callousness (unemotional) ( $H = 7.650$ ,  $gI = 2$ ,  $p = .022$ ,  $\eta^2 = .038$ ).

A one-to-one comparative analysis between the offending categories showed that youth with violent offenses had higher scores on the attribution of blame mechanism compared to non-violent offenses ( $z = -2.381$ ,  $p = .017$ ,  $\eta^2 = .052$ ), and lower scores on callousness (unemotional) ( $z = -2.040$ ,  $p = .041$ ,  $\eta^2 = .031$ ) compared to youth with property offenses. Finally, adolescents with property offenses presented a significantly higher score in attribution of blame ( $z = -2.335$ ,  $p = .020$ ,  $\eta^2 = .101$ ) compared to adolescents with nonviolent offenses.

Using Spearman's rho coefficient, a correlational analysis was performed between the variables of moral disengagement, callous-unemotional traits, and empathy (see Table 5). In general terms, moral disengagement mechanisms were positively correlated with total callous-unemotional traits, callousness, uncaring, unemotional, and personal distress, which is an affective factor of empathy. In contrast, empathic concern and perspective taking were negatively correlated with moral disengagement mechanisms. All specific correlations are shown in Table 5.

Table 6 shows the correlations between the variables of moral disengagement, callous-unemotional traits and empathy segmented by crime categories. The largest number of correlations, with larger coefficients, are found in the category of crimes with use of violence. In this group, negative correlations are evident between moral disengagement, perspective taking and empathic concern. On the contrary, all moral disengagement mechanisms present strong and positive correlations with the traits uncaring-total unemotional and callousness.

In the category of non-violent offenses, positive correlations with total uncaring unemotional, uncaring, and unemotional traits are highlighted. Total empathy was negatively correlated with moral

**Table 3.** Comparative Analysis of Offense Types, Domains and Mechanisms Moral Disengagement and Uncaring and Unemotional Traits as a Function of Gender in Adolescent Offenders

Variables	Males (n = 121)				Females (n = 28)				z	t	p	d	
	M	SD	Rp	Me	M	SD	Rp	Me					
Moral disengagement mechanisms													
Total moral disengagement	2.29	0.76	82.59	2.19	1.63	0.60	42.20	1.42	-4.464	---	.000	.134	---
Moral justification	2.79	0.97	83.70	2.75	1.69	0.86	37.39	1.25	-5.134	---	.000	.177	---
Euphemistic labeling	2.41	0.93	79.64	2.25	1.90	0.75	54.93	1.75	-2.743	---	.006	.05	---
Palliative comparison	1.98	1.00	80.62	1.75	1.36	0.61	50.71	1.00	-3.375	---	.001	.076	---
Displacement of responsibility	2.29	0.96	81.10	2.00	1.63	0.71	48.64	1.38	-3.603	---	.000	.087	---
Diffusion of responsibility	2.19	0.91	79.60	2.00	1.74	0.85	55.14	1.50	-2.717	---	.007	.05	---
Minimizing the consequences	2.21	0.92	81.03	2.00	1.59	0.66	48.93	1.25	-3.566	---	.000	.085	---
Attribution of Blame	2.29	0.99	79.96	2.00	1.76	0.85	53.55	1.38	-2.933	---	.003	.058	---
Dehumanization	2.14	1.04	81.45	2.00	1.40	0.60	47.14	1.13	-3.829	---	.000	.098	---
Callous-unemotional traits													
Total Callous-unemotional traits	1.27	.31	76.44	1.29	1.21	0.32	68.77	1.21	---	0.901	.369	---	---
Callousness	1.35	.47	75.76	1.40	1.31	0.48	71.73	1.25	-0.446	---	.656	---	---
Uncaring	0.99	.60	78.21	1.00	0.75	0.47	61.13	0.75	---	2.237	.030	---	0.47
Unemotional	1.54	.58	72.85	1.60	1.72	0.72	84.30	1.80	-1.273	---	.203	---	---
Empathy factors													
Total empathy	2.97	.43	72.01	2.96	3.21	0.54	87.91	3.07	---	-2.565	.011	---	0.54
Perspective taking	3.11	.69	72.42	3.14	3.37	0.66	86.16	3.36	---	-1.827	.070	---	---
Fantasy	2.97	.66	74.93	3.00	3.08	0.75	75.29	2.86	---	-0.758	.450	---	---
Empathic concern	3.16	.62	70.05	3.14	3.60	0.68	96.41	3.36	-2.921	---	.003	---	0.59
Personal distress	2.63	.64	73.58	2.71	2.78	0.76	81.14	2.71	---	-1.112	.268	---	---
Crime													
Crime typology	4.03	1.61	76.36	4.00	3.75	1.67	69.13	4.00	-0.816	---	.415	---	---
Criminal categories	1.62	.88	74.51	1.00	1.68	0.90	77.13	1.00	-0.341	---	.733	---	---

justification and minimizing the consequences and perspective taking presented a unique correlation with displacement of responsibility.

As for the property crime category, with the exception of the displacement of responsibility mechanism, positive correlations were

found between the mechanisms of moral disengagement and personal distress. The total callous-unemotional traits and uncaring correlated positively with palliative comparison and responsibility displacement, and the latter correlated positively with callousness. The minimizing

**Table 4.** Comparative Analysis by Crime Typology as a Function of Moral Disengagement, Callous-unemotional Traits and Empathy

	Crimes with violence				Crimes without				Property crimes				H <sub>gl=2</sub>	F <sub>gl=2</sub>	p
	M	SD	Rp	Me	M	SD	Rp	Me	M	SD	Rp	Me			
Moral disengagement mechanisms															
Total moral disengagement	2.19	0.80	76.21	2.0	1.90	0.58	62.21	2.0	2.18	0.77	76.61	2.2	1.359	---	.51
Moral justification	2.60	1.06	75.64	2.5	2.34	0.94	66.07	2.3	2.61	1.05	76.61	2.5	0.680	---	.71
Euphemistic labeling	2.36	0.98	76.75	2.3	2.21	0.64	74.96	2.5	2.23	0.87	70.85	2.0	0.531	---	.77
Palliative comparison	1.91	1.01	76.65	1.5	1.59	0.68	66.32	1.4	1.86	0.97	74.11	1.8	0.754	---	.69
Displacement of responsibility	2.16	0.98	74.47	2.0	1.86	0.89	60.00	1.8	2.27	0.89	81.51	2.1	2.641	---	.27
Diffusion of responsibility	2.07	0.90	73.47	2.0	1.84	0.75	63.46	1.9	2.28	0.99	82.68	2.1	2.412	---	.30
Minimizing the consequences	2.10	0.94	74.42	2.0	2.18	0.87	81.61	2.3	2.05	0.85	74.08	2.0	0.368	---	.83
Attribution of Blame	2.27	1.05	77.93	2.0	1.57	0.47	47.93	1.5	2.19	0.89	77.53	2.0	6.145	---	.05
Dehumanization	2.08	1.06	77.74	2.0	1.59	0.51	62.46	1.5	1.97	1.03	72.88	1.5	1.696	---	.43
Callous-unemotional traits															
Total Callous-unemotional traits	1.25	0.31	72.38	1.3	1.39	0.29	91.29	1.3	1.25	0.32	75.53	1.3	---	1.214	.30
Callousness	1.40	0.49	79.07	1.4	1.39	0.40	81.50	1.4	1.20	0.43	63.06	1.2	4.246	---	.12
Uncaring	0.89	0.56	71.03	0.9	1.11	0.68	83.93	1.1	1.02	0.58	81.30	1.0	---	1.357	.26
Unemotional	1.48	0.60	67.95	1.4	1.81	0.54	94.82	1.8	1.70	0.62	84.81	1.8	7.650	---	.02
Empathy factors															
Total empathy	3.04	0.52	77.72	3.0	3.04	0.28	78.57	3.0	2.93	0.34	67.29	3.0	---	0.915	.40
Perspective taking	3.19	0.77	77.59	3.1	3.10	0.39	70.86	3.1	3.10	0.55	70.29	3.1	---	0.315	.73
Fantasy	3.00	0.71	74.85	2.9	2.94	0.65	68.39	2.9	2.99	0.62	77.66	3.0	---	0.045	.96
Empathic concern	3.31	0.71	79.82	3.3	3.22	0.59	72.32	3.1	3.09	0.50	64.49	3.1	3.633	---	.16
Personal distress	2.67	0.70	75.67	2.7	2.90	0.53	92.46	2.9	2.54	0.60	67.29	2.6	---	2.039	.13

of the consequences mechanism correlated positively with affective empathy, total empathy, and fantasy. Likewise, perspective taking correlated negatively with moral justification and displacement of responsibility. Empathic concern correlated negatively with moral justification.

**Table 5.** Correlational Analysis Between Moral Disengagement, Uncaring and Unemotional Traits and Empathy

	ICU	CA	UC	UE	IRI	TP	Fa	PE	MP
DMT	.385***	.324***	.226**	.121	-.075	-.262***	.005	-.254**	.244**
JM	.323***	.334***	.168*	.085	-.144	-.313***	.064	-.291***	.124
LE	.333***	.324***	.123	.085	-.041	-.233**	.003	-.192*	.268***
CV	.369***	.263***	.269***	.085	-.067	-.217**	.005	-.219*	.168*
DR	.302***	.221**	.191*	.126	-.098	-.203*	.001	-.170*	.133
DifR	.255***	.243***	.088	.119	.067	-.114	.067	-.054	.285***
DC	.314***	.254**	.158	.146	.055	-.136	.001	-.149	.322***
AC	.320***	.280***	.189*	.117	-.011	-.189*	-.023	-.129	.231**
Des	.304***	.239**	.189*	.076	-.120	-.255**	-.065	-.334***	.212**

Note. DMT = global moral disengagement; JM = moral justification; LE = euphemistic labeling; CV = palliative comparison; DR = displacement of responsibility; DifR = diffusion of responsibility; DC = minimizing the consequences; AC = attribution of blame; Des = dehumanization; ICU = callous-unemotional traits total; CA = callousness; UC = uncaring; UE = unemotional; IRI = total empathy; TP = perspective taking; Fa = fantasy; PE = empathic concern; MP = personal distress.

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

The crime categories show important differences in the number of correlations with specific variables. The category of crimes with use of violence is characterized by presenting a high number of negative correlations with perspective taking, concern empathy, and positive correlations with the traits of total uncaring-unemotional and callousness. In contrast, a higher number of correlations with the variables of uncaring and unemotional characterizes the group of non-violent offenses compared to the other categories. Finally, the highest number of positive correlations with personal distress characterizes the group of crimes against property. All the specific correlations are shown in Table 6.

### Discussion

The aim of this study was to analyze, the relationships between callous-unemotional traits, empathy, and moral disengagement mechanisms in juvenile offenders segmented by gender and criminal typology.

Males were found to have significantly higher scores than females on the socio-cognitive mechanisms of moral disengagement and trait uncaring. These findings regarding gender differences are consistent with previous studies that showed that males are more prone to moral disengagement than females (Bjärehed et al., 2019; Gómez & Durán, 2021a; Gómez & Narváez, 2019; Perren & Gutzwiller-Helfenfinger, 2012; Risser & Eckert, 2016), and these differences

**Table 6.** Correlational Analysis between Moral Disengagement, Uncaring, and Unemotional Traits and Empathy as a Function of Criminal Categories

	Category of crimes against other persons with use of violence (n = 95)								
	IRI	TP	Fa	PE	MP	ICU	CA	UC	UE
DMT	-.127	-.293**	-.041	-.263**	.215*	.445***	.413***	.177	.107
JM	-.182	-.341***	.020	-.294**	.082	.414***	.421***	.179	.017
LE	-.082	-.284**	-.021	-.198	.271**	.381***	.376***	.071	.078
CV	-.140	-.264**	-.002	-.246*	.091	.375***	.317**	.179	.042
DR	-.102	-.138	-.073	-.143	.104	.269**	.245*	.077	.090
DifR	.064	-.150	.081	.010	.297**	.257*	.340***	.008	.065
DC	.005	-.105	-.082	-.161	.251*	.353***	.323***	.084	.207*
AC	-.061	-.235*	-.046	-.124	.212*	.464***	.403***	.213*	.192
Des	-.200	-.305**	-.098	-.419***	.169	.389***	.301**	.211*	.117
	Category of crimes against other persons with use of violence (n = 95)								
	IRI	TP	Fa	PE	MP	ICU	CA	UC	UE
DMT	-.519	-.32	-.391	-.426	.046	.696**	.037	.740**	.653*
JM	-.555*	-.237	-.155	-.445	-.127	.511	.136	.522	.678**
LE	-.463	-.283	-.247	-.205	-.102	.695**	.229	.622*	.681**
CV	-.125	-.082	-.336	-.117	.195	.436	-.219	.699**	.316
DR	-.326	-.535*	-.281	-.438	.455	.469	.058	.694**	.190
DifR	-.467	-.306	-.373	-.348	.017	.644*	-.108	.786***	.522
DC	-.624*	-.363	-.339	-.467	-.086	.656*	.127	.676**	.648*
AC	-.305	-.132	-.441	-.365	-.003	.562*	-.181	.630*	.500
Des	-.467	-.247	-.33	-.346	-.058	.714**	-.042	.766***	.646*
	Category of crimes against property (n = 40)								
	IRI	TP	Fa	PE	MP	ICU	CA	UC	UE
DMT	.189	-.228	.212	-.21	.473**	.190	.273	.208	.080
JM	.023	-.323*	.174	-.318*	.313*	.102	.241	.065	.147
LE	.086	-.087	.125	-.25	.324*	.061	.214	.072	.038
CV	.127	-.116	.09	-.242	.405**	.368*	.297	.386*	.113
DR	.052	-.326*	.256	-.133	.253	.369*	.322*	.318*	.158
DifR	.256	.02	.136	-.109	.408**	.134	.231	.022	.099
DC	.369*	-.151	.331*	-.028	.575***	.039	.162	.063	-.098
AC	.214	-.128	.093	-.148	.498***	.013	.177	.098	-.013
Des	.097	-.147	.026	-.235	.391*	.047	.187	.057	-.004

Note. DMT = global moral disengagement; JM = moral justification; LE = euphemistic labeling; CV = palliative comparison; DR = displacement of responsibility; DifR = diffusion of responsibility; DC = minimizing the consequences; AC = attribution of blame; Des = dehumanization; ICU = callous-unemotional traits total; CA = callousness; UC = uncaring; UE = unemotional; IRI = total empathy; TP = perspective taking; Fa = fantasy; PE = empathic concern; MP = personal distress.

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

provided differential effects in the prediction of externalizing behaviors in males (antisocial behavior, aggression, disobedience, bullying) (Cabrera et al., 2020; Charalampous et al., 2021; Espejo-Siles et al., 2020). It has also been reported that males show significantly higher scores than females in callous-unemotional traits, aggressive and antisocial behavior (Orue et al., 2016).

In contrast, it was found that females presented significantly higher scores than males in total empathy and empathic concern (emotional factor of empathy). This finding is consistent with several studies that reported that girls present a greater tendency to prosocial behaviors and experience affective empathy for others (Gómez & Durán, 2020; Longobardi et al., 2019; Mestre et al., 2009; Van der Graaff et al., 2014; Van der Graaf et al., 2018). Affective empathy was reported to be negatively associated with aggressive behavior in girls (Caravita et al., 2009; Jolliffe & Farrington, 2006).

One reason for this, and consistent with several studies (Gómez & Durán, 2020; Mestre et al., 2009; Redondo et al., 2015; Van der Graaff et al., 2014), is that males present a greater tendency towards aggression and externalization, while females towards sociality and empathy, which would be associated with a greater need for males to justify their actions through the use of one or more of the selective mechanisms of moral disengagement.

Consistent with gender schema theory (Martin & Halverson, 1981) and social cognitive theory (Bussey & Bandura, 1999), differences between males and females in moral disengagement, callous-unemotional traits, empathy and types of offending could be due to the effects of socialization processes, exposure to violence, gendered social stereotypes, cognitive schemas associated with disruptive social behavior, and moral values built around gender norms. However, the possibility of an explanation based on factors based on biological-evolutionary dispositions to explain the differences between males and females in moral agency and criminal behavior cannot be ruled out (Junewicz & Billick, 2020).

Additionally, comparative analyses segmented by gender showed that males compared to females presented a greater tendency to delinquent behaviors (crimes against property, with and without the use of violence), and adolescents who committed crimes with the use of violence presented a greater tendency to the attribution of blame and those who did not resort to violence reported greater uncaring. Moral disengagement mechanisms were also shown to correlate positively with callous-unemotional traits and negatively with perspective taking and empathic concern. However, the strength of these associations varied according to the offenses committed. In adolescents who committed violent offenses, moral disengagement had stronger associations with callous-unemotional traits, in nonviolent offenses the strongest associations were with uncaring, and in property offenses they were with personal distress. These findings are novel because they provide additional information on the differences between emotional and moral factors according to the types of crime in adolescent offenders.

In this regard, several studies argue that during adolescence the rates of antisocial behavior reach their maximum expression as a result of exposure and habituation to violence, an aspect that jointly increases moral disengagement and callous-unemotional traits and reduces empathic capacity (Hirschi & Gottfredson, 1983; Milone et al., 2019; Ouvrein et al., 2018; Piquero, 2008; Piquero et al., 2003; Wang et al., 2017). These studies corroborate reported findings of positive associations of moral disengagement with callous-unemotional traits and negative associations with empathy and the dimensions of perspective taking and empathic concern in adolescent law offenders.

The meta-analysis conducted by Paciello et al. (2020) showed that most empirical studies found that during adolescence moral disengagement and callous-unemotional traits exert a reciprocal and longitudinal influence that predicts and chronicles disruptive and antisocial behaviors. Callous-unemotional traits were reported to predict the severity and stability of antisocial and delinquent behavior

in youth (Blader et al., 2013; Enebrink et al., 2005; Frick, 2009; Frick et al., 2003; Frick et al., 2014; Frick et al., 2005; McMahon et al., 2010). Other studies have found that adolescents who present antisocial behavior traits, low empathy, moral disengagement, and emotional callousness have been exposed to social modeling processes based on the legitimization of harm towards others, violent contexts and harsh parenting (neglect, maltreatment, abuse) (Gómez, 2019; Gómez & Durán, 2020, 2021b; Hyde et al., 2010; Larsson et al., 2008; Paciello et al., 2020).

Juvenile offenders are characterized by presenting a high number of callous-unemotional traits and low levels of perspective taking, empathic concern, and greater use of moral disengagement mechanisms, corroborating the findings of Cabrol and Székely (2012), Pardini (2011), Paciello et al. (2020), which highlight that chronically violent youths justify the use of violence and aggression as a defensible form of conflict resolution and goal achievement.

In this study, they draw attention to the greater number of correlations with stronger coefficients in moral disengagement, callous-unemotional traits, and low levels of empathy in adolescents who commit crimes with the use of violence.

Finally, the present research contributes significantly to the clarification of the prevalent negative relationships between specific mechanisms of moral disengagement with empathy in its affective and cognitive dimensions, as well as strong positive correlations with callous-unemotional traits, and the variations of these associations according to gender and types of offenses, which helps to differentiate in the treatment of juvenile offenders the variables towards which the intervention objectives should be directed.

## Limitations

The findings of this study should be interpreted in light of several limitations. First, being a cross-sectional study it was not possible to determine the impact over time of psychological variables on the criminal trajectories of adolescents. Future longitudinal studies are recommended. A second limitation is the relatively small sample size, which meant that it was a sample involved in criminal behavior. However, the sample size of adolescents was larger than that reported in previous studies (D'Urso et al., 2018; Petrucelli et al., 2017). Due to restrictions for working with this population, and because they were juvenile offenders from the main re-education institution in Medellín (Colombia), a representative sample was considered. Another limitation is that the assessment of antisocial behaviors and their association with moral disengagement and callous-unemotional traits in juvenile offenders was not considered. Finally, the results were obtained by self-report, so they are not free of biases that may lead to interpretations and results with a certain probability of error. For future studies, it is advisable to use key informants, for example, parents, educators, or psychosocial teams in order to contrast self-reports with hetero-reports.

## Conflict of Interest

The authors of this article declare no conflict of interest.

## References

- Bandura, A. (1990). Mechanisms of moral disengagement. In W. Reich (Ed.), *Woodrow Wilson Center series. Origins of terrorism: Psychologies, ideologies, theologies, states of mind* (pp. 161-191). Cambridge University Press
- Bandura, A. (1991). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development* (Vol. 1, pp. 45-103). Hillsdale, NJ: Erlbaum.
- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, 3(3), 193-209. [https://doi.org/10.1207/s15327957pspr0303\\_3](https://doi.org/10.1207/s15327957pspr0303_3)

- Bandura, A. (2002). Selective moral disengagement in the exercise of moral agency. *Journal of Moral Education*, 31(2), 101-119. <https://doi.org/10.1080/0305724022014322>
- Bandura, A. (2016). *Moral disengagement: How people do harm and live with themselves*. Worth Publishers.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology*, 71(2), 364-374. <https://doi.org/10.1037/0022-3514.71.2.364>
- Bandura, A., Caprara, G. V., Barbaranelli, C., Pastorelli, C., & Regalia, C. (2001). Sociocognitive self-regulatory mechanisms governing transgressive behavior. *Journal of Personality and Social Psychology*, 80(1), 125-135. <https://doi.org/10.1037/0022-3514.80.1.125>
- Bakioglu, F., & Capan, B. E. (2019). Moral disengagement and cyber bullying, A mediator role of empathic tendency. *International Journal of Technoethics*, 10(2), 22-34. <https://doi.org/10.4018/ijt.2019070102>
- Billen, E., Garofalo, C., Weller, J., Kirisci, L., Reynolds, M., Tarter, R., & Bogaerts, S. (2022). Bidirectional associations between self-regulation and deviance from adolescence to adulthood. *Development and Psychopathology*, 34(1), 335-344. <https://doi.org/10.1017/S0954579420000656>
- Bjärehed, M., Thornberg, R., Wänström, L., & Gini, G. (2019). Individual moral disengagement and bullying among Swedish fifth graders: The role of collective moral disengagement and pro-bullying behavior within classrooms. *Journal of Interpersonal Violence*, 36(17-18), NP9576-NP9600. <https://doi.org/10.1177/0886260519860889>
- Blader, J. C., Pliszka, S. R., Kafantaris, V., Foley, C. A., Crowell, J. A., Carlson, G. A., Sauder, C. L., Margulies, D. M., Sinha, C., Sverd, J., Matthews, T. L., Bailey, B. Y., & Daviss, W. B. (2013). Callous-unemotional traits, proactive aggression, and treatment outcomes of aggressive children with attention-deficit/hyperactivity disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 52(12), 1281-1293. <https://doi.org/10.1016/j.jaac.2013.08.024>
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106(4), 676-713. <https://doi.org/10.1037/0033295X.106.4.676>
- Cabrera, M. C., Larrañaga, E., & Yubero, S. (2020). The role of emotions, moral disengagement and gender in supporting victims of bullying. *Education Sciences*, 10(12), 365. <https://doi.org/10.3390/educsci10120365>
- Cabrol, M., & Székely, M. (Eds.). (2012). *Educación para la transformación. Banco Interamericano de Desarrollo-BID* [Education for Transformation. Inter-American Development Bank-IDB]. <http://mapeal.cippec.org/wpcontent/uploads/2014/06/CABROL-y-SZEKELY-Educaci%C3%B3n-para-latransformaci%C3%B3n.pdf>
- Caravita, S. C. S., Di Blasio, P., & Salmivalli, C. (2009). Unique and interactive effects of empathy and social status on involvement in bullying. *Social Development*, 18(1), 140-163. <https://doi.org/10.1111/j.1467-9507.2008.00465.x>
- Charalampous, K., Ioannou, M., Georgiou, S., & Stavrinides, P. (2021). Cyberbullying, psychopathic traits, moral disengagement, and school climate: the role of self-reported psychopathic levels and gender. *Educational Psychology*, 41(3), 1-20. <https://doi.org/10.1080/01443341.2020.1742874>
- Cheng, Y., Hung, A. Y., & Decety, J. (2012). Dissociation between affective sharing and emotion understanding in juvenile psychopaths. *Development and Psychopathology*, 24(2), 623-636. <https://doi.org/10.1017/S095457941200020X>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2. Auflage). Erlbaum.
- Congreso de la República de Colombia. (2006). *Ley 1090 de 2006*, por la cual se reglamenta el ejercicio de la profesión de Psicología, se dicta el código deontológico y bioético y otras disposiciones [Law 1090 of 2006. Whereby the practice of the profession of psychology is regulated, the code of ethics and bioethics and other provisions are established]. [http://www.secretariassenado.gov.co/senado/basedoc/ley\\_1090\\_2006.html](http://www.secretariassenado.gov.co/senado/basedoc/ley_1090_2006.html)
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113-126. <https://doi.org/10.1037/0022-3514.44.1.113>
- D'Urso, G., Petrucelli, L., & Pace, U. (2018). Drug use as a risk factor of moral disengagement: A study on drug traffickers and offenders against other persons. *Psychiatry, Psychology and Law*, 25(3), 417-424. <https://doi.org/10.1080/13218719.2018.1437092>
- Eisenberg, N., Shea, C. L., Carlo, G., & Knight, G. P. (1991). Empathy-related responding and cognition: A "chicken and the egg" dilemma. In Kurtines, W. M. (Ed.), *Handbook of moral behavior and development: Vol. 2. Research* (pp. 63-88). Erlbaum.
- Enebrink, P., Andershed, H., & Långström, N. (2005). Callous-unemotional traits are associated with clinical severity in referred boys with conduct problems. *Nordic Journal of Psychiatry*, 59(6), 431-440. <https://doi.org/10.1080/08039480500360690>
- Espejo-Siles, R., Zych, I., Farrington, D. P., & Llorent, V. J. (2020). Moral disengagement, victimization, empathy, social and emotional competencies as predictors of violence in children and adolescents. *Children and Youth Services Review*, 118, Article 105337. <https://doi.org/10.1016/j.childyouth.2020.105337>
- Fang, J., Wang, X., Yuan, K., Wen, Z., Yu, X., & Zhang, G. (2020). Callous-unemotional traits and cyberbullying perpetration: The mediating role of moral disengagement and the moderating role of empathy. *Personality and Individual Differences*, 157, Article 109829. <https://doi.org/10.1016/j.paid.2020.109829>
- Fisher, P. A., & Chamberlain, P. (2000). Multidimensional treatment foster care: A program for intensive parenting, family support, and skill building. *Journal of Emotional and Behavioral Disorders*, 8(3), 155-164. <https://doi.org/10.1177/10634266000800303>
- Fontaine, N., Rijdsdijk, F. V., McCrory, E., & Viding, E. (2010). Etiology of different developmental trajectories of callous-unemotional traits. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(7), 656-664. <https://doi.org/10.1016/j.jaac.2010.03.014>
- Frick, P. J. (2004). *The Inventory of Callous-Unemotional Traits*. University of New Orleans.
- Frick, P. J. (2009). Extending the construct of psychopathy to youth: Implications for understanding, diagnosing, and treating antisocial children and adolescents. *The Canadian Journal of Psychiatry*, 54(12), 803-812. <https://doi.org/10.1177/070674370905401203>
- Frick, P. J., Cornell, A. H., Barry, C. T., Bodin, S. D., & Dane, H. E. (2003). Callous-unemotional traits and conduct problems in the prediction of conduct problem severity, aggression, and self-report of delinquency. *Journal of Abnormal Child Psychology*, 31(4), 457-470. <https://doi.org/10.1023/a:1023899703866>
- Frick, P. J., & Loney, B. R. (1999). Outcomes of children and adolescents with oppositional defiant disorder and conduct disorder. In H. C. Quay & A. E. Hogan (Eds.), *Handbook of disruptive behavior disorders* (p. 507-524). Kluwer Academic Publishers. [https://doi.org/10.1007/978-1-4615-4881-2\\_24](https://doi.org/10.1007/978-1-4615-4881-2_24)
- Frick, P. J., Ray, J. V., Thornton, L. C., & Kahn, R. E. (2014). Can callous-unemotional traits enhance the understanding, diagnosis, and treatment of serious conduct problems in children and adolescents? A comprehensive review. *Psychological Bulletin*, 140(1), 1-57. <https://doi.org/10.1037/a0033076>
- Frick, P. J., Stickell, T. R., Dandreaux, D. M., Farrell, J. M., & Kimonis, E. R. (2005). Callous-unemotional traits in predicting the severity and stability of conduct problems and delinquency. *Journal of Abnormal Child Psychology*, 33(4), 471-487. <https://doi.org/10.1007/s10648-005-5728-9>
- Fritz, C. O., Morris, P. E., & Richler, J. J. (2012). Effect size estimates: Current use, calculations, and interpretation. *Journal of Experimental Psychology: General*, 141(1), 2-18. <https://doi.org/10.1037/a0024338>
- Gajos, J. M., Leban, L., Weymouth, B. B., & Cropsey, K. L. (2022). Sex differences in the relationship between early adverse childhood experiences, delinquency, and substance use initiation in high-risk adolescents. *Journal of Interpersonal Violence*. Advance online publication. <https://doi.org/10.1177/08862605221081927>
- Gallego-Matellán, M., López-Romero, L., & León-Mejía, A. (2019). Socioemotional development in children with callous-unemotional traits: A case study of a multimodal intervention. *Revista de Psicología Clínica con Niños y Adolescentes*, 6(1), 57-63. <https://doi.org/10.21134/rpcna.2019.06.1.8>
- Gibbon, S., Khalifa, N. R., Cheung, N. H., Völlm, B. A., & McCarthy, L. (2020). Psychological interventions for antisocial personality disorder. *The Cochrane Database of Systematic Reviews*, 9(9), CD007668. <https://doi.org/10.1002/14651858.CD007668.pub3>
- Gini, G. (2006). Social cognition and moral cognition in bullying: What's wrong? *Aggressive Behavior*, 32(6), 528-539. <https://doi.org/10.1002/ab.20153>
- Gómez, A. S. (2019). Potenciales prosociales en niños, niñas y adolescentes desvinculados de grupos armados ilegales en Colombia [Prosocial potentials in children and adolescents disengaged from illegal armed groups in Colombia]. *Quaderns de Psicologia*, 21(2), Artículo e1483. <https://doi.org/10.5565/rev/psicologia.1483>
- Gómez, A. S., & Durán, N. (2020). Motivaciones prosociales, empatía y diferencias de género en adolescentes víctimas del conflicto armado e infractores de la ley [Prosocial motivations, empathy and gender differences in adolescent victims of the armed conflict and law offenders]. *Revista sobre la Infancia y la Adolescencia*, 18, 69-90. <https://doi.org/10.4995/reinad.2020.12771>
- Gómez, A. S., & Durán, N. (2021a). Desconexión moral y diferencias de género en víctimas del conflicto armado, infractores de la ley y escolares [Moral disengagement and gender differences in victims of armed conflict, law offenders and schoolchildren]. *Revista Criminalidad*, 63(1), 39-60. <https://doi.org/10.47741/17943108.291>
- Gómez, A. S., & Durán, N. M. (2021b). The protective role of empathy and emotional self-efficacy in predicting moral disengagement in adolescents separated from illegal armed groups. *Anuario de Psicología Jurídica*, 31(1), 127-136. <https://doi.org/10.5093/apj2021a10>
- Gómez, A. S., & Narváez, N. (2019). Mecanismos de desconexión moral y su relación con la empatía y la prosocialidad en adolescentes que han tenido experiencias delictivas [Moral disengagement mechanisms and their relationship with empathy and prosociality in adolescents who have had offending experiences]. *Revista de Psicología*, 37(2), 603-641. <https://doi.org/10.18800/psico.201902.010>
- Gómez, A. S., Narváez, M., & Correa, M. C. (2019). Motivaciones prosociales y desconexión moral en adolescentes desvinculados de grupos

- armados ilegales [Prosocial motivations and moral disengagement in adolescents disengaged from illegal armed groups]. *Psicología desde el Caribe*, 36(3), 297-327. <https://doi.org/10.14482/psdc.36.3.303.6>
- Gómez, A. S., Nuñez, C., & Caballo, V. E. (2021). Mecanismos de desconexión moral, diferencias de sexo y predictores clínicos en adolescentes: un estudio exploratorio [Mechanisms of moral disengagement, sex differences, and clinical predictors in adolescents: An exploratory study]. *Psykhe*, 30(2), 1-18. <https://doi.org/10.7764/psykhe.2020.22451>
- Hirschi, T., & Gottfredson, M. (1993). Age and the explanation of crime. *American Journal of Sociology*, 99(3), 552-584. <https://doi.org/10.1086/227905>
- Hodgdon, H. B. (2009). *Child maltreatment and aggression: The mediating role of moral disengagement, emotion regulation, and emotional callousness among juvenile offenders* (Thesis/Dissertation). <https://doi.org/10.34944/dspace/1426> <http://hdl.handle.net/20.500.12613/1444>
- 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(2), 197-209. <https://doi.org/10.1007/s10802-009-9358-5>
- IBM Corporation. (2017). IBM SPSS Statistics for Windows, version 25.0 [computer program]. IBM Corporation.
- Jolliffe, D., & Farrington, D. P. (2006). Development and validation of the Basic Empathy Scale. *Journal of Adolescence*, 29(4), 589-611. <https://doi.org/10.1016/j.adolescence.2005.08.010>
- Junewicz, A., & Billick, S. B. (2020). Conduct disorder: Biology and developmental trajectories. *Psychiatric Quarterly*, 91(1), 77-90. <https://doi.org/10.1007/s11126-01909678-5>
- Larsson, H., Viding, E., & Plomin, R. (2008). Callous-unemotional traits and antisocial behavior: Genetic, environmental, and early parenting characteristics. *Criminal Justice and Behavior*, 35(2), 197-211. <https://doi.org/10.1177/0093854807310225>
- Loney, B. R., Frick, P. J., Clements, C. B., Ellis, M. L., & Kerlin, K. (2003). Callous-unemotional traits, impulsivity, and emotional processing in adolescents with antisocial behavior problems. *Journal of Clinical Child and Adolescent Psychology*, 32(1), 66-80. [https://doi.org/10.1207/S15374424JCCP3201\\_07](https://doi.org/10.1207/S15374424JCCP3201_07)
- Longobardi, E., Spataro, P., & Rossi-Arnaud, C. (2019). Direct and indirect associations of empathy, theory of mind, and language with prosocial behavior: Gender differences in primary school children. *The Journal of Genetic Psychology*, 180(6), 266-279. <https://doi.org/10.1080/00221325.2019.1653817>
- López-Romero, L., Gómez-Fraguela, J. A., & Romero, E. (2015). Assessing callous unemotional traits in a Spanish sample of institutionalized youths: The Inventory of Callous-Unemotional Traits. *Journal of Psychopathology and Behavioral Assessment* 37(3), 392-406. <https://doi.org/10.1007/s10862-014-9469-3>
- Martin, C. L., & Halverson, C. (1981). A schematic processing model of sex typing and stereotyping in children. *Child Development*, 52(4), 1119-1134. <https://doi.org/10.2307/1129498>
- McDonald, R. P. (1999). *Test theory: A unified treatment*. Lawrence Erlbaum
- McMahon, R. J., Witkiewitz, K., Kotler, J. S., & Conduct Problems Prevention Research Group (2010). Predictive validity of callous-unemotional traits measured in early adolescence with respect to multiple antisocial outcomes. *Journal of Abnormal Psychology*, 119(4), 752-763. <https://doi.org/10.1037/a0020796>
- Mestre, E. M., Samper, G. P., & Frías, N. M. (2004). La medida de la empatía: análisis del Interpersonal Reactivity Index [Measuring empathy: Analysis of the Interpersonal Reactivity Index]. *Psicothema*, 16(2), 255-260. <http://www.psicothema.com/pdf/1191.pdf>
- Mestre, M., Samper, P., Frías, M., & Tur, A. (2009). Are women more empathetic than men? A longitudinal study in adolescence. *The Spanish Journal of Psychology*, 12(1), 76-83. <https://doi.org/10.1017/S1138741600001499>
- Milone, A., Cerniglia, L., Cristofani, C., Inguaggiato, E., Levantini, V., Masi, G., Paciello, M., Simone, F., & Muratori, P. (2019). Empathy in youths with conduct disorder and callous-unemotional traits. *Neural Plasticity Journal*, Article 9638973. <https://doi.org/10.1155/2019/9638973>
- Mulvey, E. P., Steinberg, L., Fagan, J., Cauffman, E., Piquero, A. R., Chassin, L., Knight, G. P., Brame, R., Schubert, C. A., Hecker, T., & Losoya, S. H. (2004). Theory and research on desistance from antisocial activity among serious adolescent offenders. *Youth Violence and Juvenile Justice*, 2(3), 213-236. <https://doi.org/10.1177/1541204004265864>
- Muratori, P., Paciello, M., Buonanno, C., Milone, A., Rugliani, L., Lochman, J. E., & Masi, G. (2017). Moral disengagement and callous-unemotional traits: A longitudinal study of Italian adolescents with a disruptive behavior disorder. *Criminal Behaviour and Mental Health*, 27(5), 514-524. <https://doi.org/10.1002/cbm.2019>
- Northam, J. C., & Dadds, M. R. (2020). Is callous always cold? A critical review of the literature on emotion and the development of callous-unemotional traits in children. *Clinical Child and Family Psychology Review*, 23(2), 265-283. <https://doi.org/10.1007/s10567-019-00309-w>
- Orue, I., Calvete, E., & Gamez-Guadix, M. (2016). Gender moderates the association between psychopathic traits and aggressive behavior in adolescents. *Personality and Individual Differences*, 94, 266-271. <https://doi.org/10.1016/j.paid.2016.01.043>
- Ouvrein, G., De Backer, C., & Vandebosch, H. (2018). Online celebrity aggression: A combination of low empathy and high moral disengagement? The relationship between empathy and moral disengagement and adolescents' online celebrity aggression. *Computers in Human Behavior*, 89, 61-69. <https://doi.org/10.1016/j.chb.2018.07.029>
- Paciello, M., Ballarotto, G., Cerniglia, L., & Muratori, P. (2020). Does the interplay of callous-unemotional traits and moral disengagement underpin disruptive behavior? A systematic review. *Adolescent Health, Medicine and Therapeutics*, 11, 9-20. <https://doi.org/10.2147/ahmt.s151699>
- Paciello, M., Fida, R., Tramontano, C., Lupinetti, C., & Caprara, G. V. (2008). Stability and change of moral disengagement and its impact on aggression and violence in late adolescence. *Child Development*, 79(5), 1288-1309. <https://doi.org/10.1111/j.14678624.2008.01189.x>
- Pardini, D. (2011). Perceptions of social conflicts among incarcerated adolescents with callous-unemotional traits: 'You're going to pay. It's going to hurt, but I don't care'. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 52(3), 248-255. <https://doi.org/10.1111/j.1469-7610.2010.02336.x>
- Pelton, J., Gound, M., Forehand, R., & Brody, G. (2004). The Moral Disengagement Scale: Extension with an American minority sample. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 31-39. <https://doi.org/10.1023/B:JOBA.0000007454.34707.a5>
- Perren, S., & Gutzwiller-Helfenfinger, E. (2012). Cyberbullying and traditional bullying in adolescence: Differential roles of moral disengagement, moral emotions, and moral values. *European Journal of Developmental Psychology*, 9(2), 195-209. <https://doi.org/10.1080/17405629.2011.643168>
- Petrucelli, I., Simonelli, C., Barbaranelli, C., Grilli, S., Tripodi, M. F., & D'Urso, G. (2017). Moral disengagement strategies in sex offenders. *Psychiatry, Psychology and Law*, 24(3), 470-480. <https://doi.org/10.1080/13218719.2016.1252291>
- Piquero, A. R. (2008). Taking stock of developmental trajectories of criminal activity over the life course. In A. Liberman (Ed.), *The long view of crime: A synthesis of longitudinal research* (pp. 23-78). Springer. [https://doi.org/10.1007/978-0-387-71165-2\\_2](https://doi.org/10.1007/978-0-387-71165-2_2)
- Piquero, A. R., Farrington, D. P., & Blumstein, A. (2003). The criminal career paradigm. *Crime and Justice: A Review of Research*, 30, 359-506. <https://doi.org/10.1086/652234>
- Redondo, J., Rangel, K., & Luzardo, M. (2015). Diferencias en comportamientos prosociales entre adolescentes colombianos [Differences in prosocial behaviors among Colombian adolescents]. *Psicogente*, 18(34), 311-319. <https://doi.org/10.17081/psico.18.34.507>
- República de Colombia. Ministerio de Salud. (1993). *Resolución No. 8430 del 4 de octubre de 1993. Por la cual se establecen las normas científicas, técnicas y administrativas para la investigación en salud* [Resolution No. 8430 of October 4, 1993, whereby the scientific, technical and administrative norms for health research are established]. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>
- Restrepo, J. (2014). *Violencia juvenil en contextos urbanos* [Youth violence in urban contexts]. Centro de Recursos para el Análisis de Conflictos CERAC. [https://www.cerac.org.co/assets/pdf/Libro\\_Violencia\\_Juvenil\\_SegundaParte.pdf](https://www.cerac.org.co/assets/pdf/Libro_Violencia_Juvenil_SegundaParte.pdf)
- Risser, S., & Eckert, K. (2016). Investigating the relationships between antisocial behaviors, psychopathic traits, and moral disengagement. *International Journal of Law and Psychiatry*, 45, 70-74. <https://doi.org/10.1016/j.ijlp.2016.02.012>
- Rubio-Garay, F., Amor, P., & Carrasco, M. (2017). Dimensionality and psychometric properties of the Spanish version of the Mechanisms of Moral Disengagement Scale (MMDS-S). *Revista de Psicopatología y Psicología Clínica*, 22(1), 43-54. <https://doi.org/10.5944/rppc.vol.22.num.1.2017.16014>
- Shulman, E. P., Cauffman, E., Piquero, A. R., & Fagan, J. (2011). Moral disengagement among serious juvenile offenders: A longitudinal study of the relations between morally disengaged attitudes and offending. *Developmental Psychology*, 47(6), 1619-1632. <https://doi.org/10.1037/a0025404>
- Steinberg L. (2004). Risk taking in adolescence: what changes, and why? *Annals of the New York Academy of Science*, 1021(1), 51-58. <https://doi.org/10.1196/annals.1308.005>
- Van der Graaff, J., Branje, S., De Wied, M., Hawk, S., Van Lier, P., & Meeus, W. (2014). Perspective taking and empathic concern in adolescence: Gender differences in developmental changes. *Developmental Psychology*, 50(3), 881-888. <https://doi.org/10.1037/a0034325>
- Van der Graaff, J., Carlo, G., Crocetti, E., Koot, H. M., & Branje, S. (2018). Prosocial behavior in adolescence: Gender differences in development and links with empathy. *Journal of Youth and Adolescence*, 47(5), 1086-1099. <https://doi.org/10.1007/s10964-017-0786-1>
- Viding, E., Blair, R., Moffitt, T., & Plomin, R. (2005). Evidence for substantial genetic risk for psychopathy in 7-year-olds. *The Journal Child Psychology and Psychiatry*, 46(6), 592-597. <https://doi.org/10.1111/j.1469-7610.2004.00393.x>
- Vinet, E. V. (2010). Psicopatía infanto-juvenil: Avances en conceptualización, evaluación e intervención [Child and juvenile psychopathy: Advances in

- conceptualization, assessment and intervention]. *Terapia Psicológica*, 28(1), 109-118. <https://doi.org/10.4067/S0718-48082010000100010>
- Walters, G. D. (2017). Callous-unemotional traits and moral disengagement as antecedents to the peer influence effect: moderation or mediation? *Journal of Crime and Justice*, 41(3), 259-275. <https://doi.org/10.1080/0735648x.2017.1284688>
- Wang, X., Lei, L., Yang, J., Gao, L., & Zhao, F. (2017). Moral disengagement as mediator and moderator of the relation between empathy and aggression among Chinese male juvenile delinquents. *Child Psychiatry Human Development*, 48(2), 316-326. <https://doi.org/10.1007/s10578-016-0643-6>
- Woodworth, M., & Waschbusch, D. (2008). Emotional processing in children with conduct problems and callous/unemotional traits. *Child: Care, Health and Development*, 34(2), 234-244. <https://doi.org/10.1111/j.1365-2214.2007.00792.x>
- Zych, I., & Llorent, V. (2018). Affective empathy and moral disengagement related to late adolescent bullying perpetration. *Journal Ethics & Behavior*, 29(7), 547-556. <https://doi.org/10.1080/10508422.2018.1521282>

