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Integrating Dehumanization and Attachment in the Prediction of Teen Dating Violence Perpetration**Abstract**

Dehumanization has the potential to account for different abusive behaviors because it involves making negative judgments of others that make it easier to harm them. However, research has not resorted to this mechanism to analyze teen dating violence (TDV) perpetration, nor has it examined its association with the broader representations of others linked to attachment. The first objective of this study was to analyze whether dehumanization of one's partner (lesser perceived agency and experience) and attribution of evilness were associated with a higher level of TDV perpetration and specific attachment styles. The second objective was to develop a structural equation model (SEM) that allowed integration of the links between all these factors. Participants in this cross-sectional study were 1799 adolescents who completed a survey in high schools. The results showed that those who were classified as high in TDV perpetration did perceive lower agency, lower experience, and higher evilness in their partners. The dehumanized perception of one's partner was found to vary according to the attachment styles, with those highest in avoidance (dismissive and fearful) dehumanizing their partners the most. The SEM showed that dehumanization is related to avoidant and not to anxious attachment. It also pointed to the relevance of attribution of evilness in predicting TDV perpetration. The invariance of the model was tested across gender subsamples. These findings allow better understanding of how violence may arise in early relationships and where to focus intervention with adolescents.

Keywords: dehumanization, agency, experience, mind perception, teen dating violence, attachment, evil

Being involved in teen dating violence (TDV) has proven to be one prevalent experience for teenagers, with negative developmental and well-being consequences (Exner-Cortens, Eckenrode, & Rothman, 2013; Vagi, Olsen, Basile, & Vivolo-Kantor, 2015; Wincentak, Connolly, & Card, 2017). Although important progress has been made over the last decades in preventing this problem (De La Rue, Polanin, Espelage, & Pigott, 2016; Ellsberg et al., 2015), it is still necessary to explore new avenues to allow us to understand early manifestations of violence.

Dehumanization has the potential to account for different abusive behaviors because it involves making negative judgments of others that make it easier to harm them. However, research has not resorted to this mechanism to analyze teen dating violence (TDV) perpetration, nor has it examined its association with the broader representations of others with relation to attachment. Integrating both perspectives may offer a broader view of how a negative partner's perception could make TDV more likely, at a time when the vision of what a romantic relationship means is being consolidated. Adolescent brain goes through changes in social-affective processing that predispose it to engage in social relationships (Crone & Dahl, 2012), thus contributing to the development of neurological circuits whose influence is lasting (Morris, Squeglia, Jacobus, & Silk, 2018). This means that early experiences in romantic relationships may affect the nature and quality of subsequent intimate relationships (Madsen & Collins, 2011).

Dehumanization

People evaluate the humanity of each other during social interactions (Haslam & Loughnan, 2014), which influences many judgments and behavioral decisions about protecting or harming each other (Haslam & Stratemeyer, 2016). Attributing humanity means being considered able to experience uniquely human secondary emotions, such as shame, guilt, or hope (Leyens et al., 2001), or having proper human characteristics, such as culture or rationality, along with others that are shared by animals, such as emotionality and curiosity (Haslam, 2006). From the theory of mind research (Gray, Gray, & Wegner, 2007), human characteristics can be grouped into two basic dimensions: one is experience, which clusters capacities like having consciousness, sensations and feelings; and the other is agency, which includes the capacity to have thoughts, intentions, and self-control.

The opposing view of this humanization process is to deprive people of those capacities to some degree. Thus, dehumanization may lead to the denial of one or both mind dimensions already mentioned (Blake, Bastian & Denson, 2016). As stated by Waytz, Cacioppo, and Epley

(2014) people who are thought to lack agency are considered unable to plan and think, and they are also considered in an animalized way. The lack of perceived experience has been associated with the absence of primary and secondary emotions, and is thought to facilitate mechanistic dehumanization.

Although research has extensively analyzed the dehumanization of women (Bevens & Loughnan, 2019), it has barely examined it within intimate relationships (Bastian, Jetten, & Haslam, 2014). Pizzirani and Karantzas (2019) found that the changes in the dehumanized perception of one's partner over time were positively associated with changes in one's perpetration of emotional and physical abuse. However, the association between dehumanization and teen dating violence (TDV) remains unexplored. Longitudinal studies indicate that TDV perpetration is not necessarily stable over time (Johnson, Giordano, Manning, & Longmore, 2015; Swartout, Cook, & White, 2012). Adolescents who show more serious or frequent initial violence are precisely those who tend to persist (Whitaker, Le, & Niolon, 2010). In this regard, the question was raised whether more serious TDV perpetration is associated with a more dehumanized view on the part of the partner.

Evil

The denial of agency or experience is also related to morality evaluations that reinforce a negative perception of others. It makes people seem less deserving of fair treatment and protection (Bastian, Laham, Wilson, Haslam, & Koval, 2011) and fosters justifications that reduce responsibility and makes these actions seem less immoral (Bevens & Loughnan, 2019). It has been found to increase support for violence against outgroup members (Goff, Eberhardt, Williams & Jackson, 2008; Leidner, Castano, & Ginges, 2013), acceptance of discriminatory treatment (Kteily, Bruneau, Waytz & Cotterill, 2015), and the justification of the punishment to the extent that others are considered to be responsible for their immoral acts and, therefore, deserving of punishment for their evil deeds (Vasiljevic & Viki, 2014).

Research has demonstrated that making judgments about others' morality is a common process in everyday life (Ybarra, Chan, & Park, 2001), and people often think of others' moral behavior in terms of good or evil (Quiles, Morera, Leyens, & Correa, 2014). This leads to rewarding good, but above all to punishing evil (Baumeister, Bratslavsky, Finkenauer & Vohs, 2001). According to Douglas (2012), those who tend to perceive greater evilness in others also have more negative responses towards them. People usually make global evil evaluations using a set of damaging behaviors, such as humiliation, exclusion, slander, harassment, or deception (Quiles, Morera, Correa, & Leyens, 2010). An evil behavior is one that is considered to be

aimed at making others suffer, which can be recognized because it is planned and guided by the desire to harm or destroy. The evil person is seen to be lacking compassion and satisfied with the harm caused, all of which is supposed to require a distinctive personality. People seem to consider evil and aggression as two close but still different concepts. While the idea of aggression focuses on the consequences of behavior, judgments of evilness focus on what the perpetrator had in mind (Quiles et al., 2010). This made it necessary to analyze whether attributing evilness to one's partner would or would not be associated with greater frequency and seriousness of TDV perpetration.

Attachment

Perceiving different degrees of humanity in people can be considered as a general view of human beings, and it could be subsumed into the broader attachment representations. In this regard, attachment theory offers an explanatory framework of both the vision of others and the tendency to use violence to harm the partner. From this perspective, early experiences with caregivers are assumed to lead to the formation of stable attachment orientations that are reflected in cognitive, behavioral, and neural patterns throughout life (Mikulincer & Shaver, 2019). In adolescents and adults, attachment orientations are generally examined through two dimensions, anxiety about abandonment and avoidance of intimacy (Brennan, Clark, & Shaver, 1998; Simpson, Rholes, & Phillips, 1996). However, research also analyzes the attachment styles that emerge when combining scores on those dimensions (Gonzalez-Mendez, Jiménez-Ardila, & Ramírez-Santana, 2019; Kaitz, Bar-Haim, Lehrer, & Grossman, 2004; Powers, Pietromonaco, Gunlicks, & Sayer, 2006). These four styles are secure (low in both dimensions), fearful (high in both dimensions), preoccupied (high in anxiety and low in avoidance), and dismissive (low in anxiety and high in avoidance).

Interestingly, attachment styles are also thought to subsume beliefs and feelings about the self and others (Bartholomew & Horowitz, 1991). Thus, while secure attachment relates to a positive model of both the self and others, insecure attachment predicts negative views of self (preoccupied), of others (dismissive) or both (fearful). In a similar vein, those insecure attachment styles that are associated with a more negative assessment of others (dismissive and fearful) could lead to the attribution of evilness and to the dehumanization of romantic partners.

The current study

The literature reviewed so far has led us to identify several gaps. First, neither dehumanization nor attribution of evilness have been studied in the context of early romantic relationships, which raised the question of whether they could be associated with more serious TDV

perpetration. Second, dehumanization and attribution of evilness imply a conception of others that makes it easier to harm them, but it has not been analyzed if that view could be integrated into wider attachment representations. Finally, the association between dehumanization and attribution of evilness, attachment, and TDV perpetration also need to be explored. Considering these gaps, the aim of this study was to analyze whether dehumanization of one's partner (lesser perceived agency and experience) and attribution of evilness were associated with a higher level of TDV perpetration and specific attachment styles. In this sense, the following hypotheses were proposed.

Since dehumanization has been found to facilitate actions that cause harm to others (Haslam and Loughnan, 2014), we expected that this mechanism could be identified in those initial romantic relationships in which more frequent and serious TDV was observed. Perceiving greater evilness in others has also been associated with more negative responses towards them (Douglas, 2012), which led us to expect a significant association between attribution of evil and TDV perpetration. Compared with participants classified as low in TDV perpetration, we hypothesized that those classified as high would perceive a lower agency and experience in their partners, as well as attribute them a higher evilness (Hypothesis 1).

Research has found evidence linking insecure attachment to violence against partner in both adults (Velotti, Zobel, Rogier, & Tambelli, 2018) and teenagers (Bonache, Gonzalez-Mendez, & Krahe, 2017; Martin, Hill, & Allemand, 2018). However, this association tends to be more consistent when considering the anxiety dimension (Godbout et al., 2016). Moreover, only high levels of avoidance predict a negative partner's assessment in male batterers (Gonzalez-Mendez et al., 2019). Hence, we expected that highly avoidant adolescents (i.e., dismissive and fearful) would perceive a lower agency and experience in their partners, and a higher evilness, than those lower in avoidance (i.e., secure and preoccupied). To be precise, we hypothesized that the participants who scored higher for avoidance would perceive a lower agency and experience, as well as a higher evilness, compared to those classified as lower for avoidance (Hypothesis 2).

Studies on dehumanization and attachment share the premise that people differ in their perception of others (Bartholomew & Horowitz, 1991; Bastian, 2019; Khamitov, Rotman & Piazza, 2016), suggesting that these views could combine to make TDV more or less likely. To test the links between the partner's views that emerge from these frameworks, attribution of evilness, and TDV perpetration, we developed a structural equation model (SEM). In addition to the paths already analyzed (hypotheses 1 and 2), we hypothesized the following associations:

Avoidant and anxious attachment dimensions often correlate in the adolescent population (Bonache et al., 2017). Hence, we expected that both dimensions would covariate in the SEM (hypothesis 3). We also expected that highly avoidant participants would report more TDV perpetration, but only if they also showed a more dehumanized view of their partner (less agency and experience), as well as more evilness (Hypothesis 4). Finally, we expected that anxious participants would report more TDV perpetration (hypothesis 5). Figure 1 shows all the hypothesized paths.

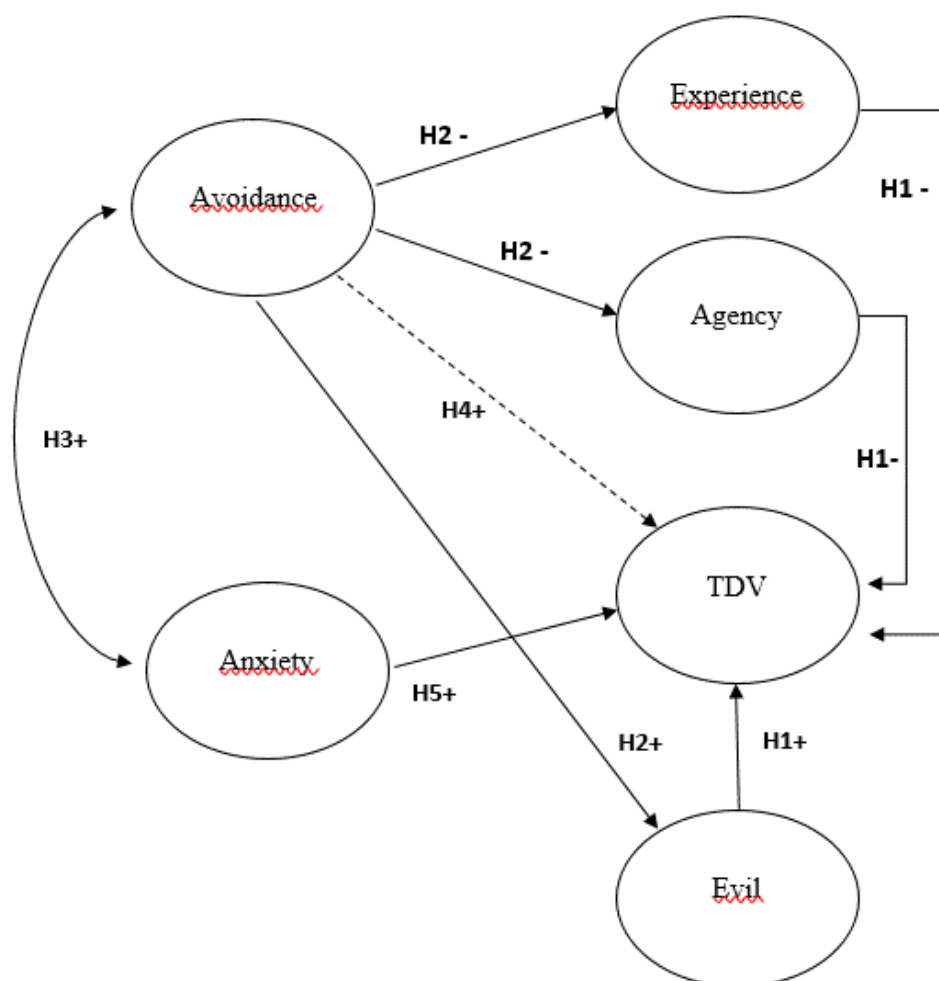


Figure 1. Solid lines indicate the hypothesized paths between attachment dimensions, dehumanization, and evil to TDV perpetration. The dotted line indicates the hypothesized indirect path from avoidance to TDV through agency, experience, and evil.

Method

Participants

Participants were recruited from different public high schools, thus ensuring that they represented a variety of socioeconomic strata. Only those students who claimed to have or to have had at least one opposite-sex romantic partner were included in the study. The final sample included 1799 adolescents (889 boys and 910 girls) aged 13 to 18 ($M = 15.5$, $SD = 1.16$). Their romantic relationships lasted between one month and five years ($M = 8.0$ months, $SD = 7.9$). While 48.1% indicated to have responded in relation to a current partner, 51.9% did so in relation to a past one. They were all born in Spain and of European ethnic origin.

Procedure

Before initiating the study, compliance with ethical standards was positively assessed by the Institutional Review Board of the authors' university. In addition, permission was requested from participants' high schools and families. Data collection was done collectively during school hours. All participants received identical instructions and responded to the same questionnaire. Student participation was voluntary, and participants were assured in advance of their anonymity. No participants received extra credits, but only 0.3% refused to participate.

Measures

Along with questions about background characteristics and romantic experience, the instrument consisted of several scales.

The mind dimensions. We used a modified version of the indicators proposed by Gray et al. (2007) to measure the mind dimensions. Participants were asked to describe their partners compared to other people. Agency was measured using three questions about the partner's capacity of self-control ("capable of restraining his/her wishes, emotions, and impulses?"), capacity to act morally ("capable of anticipating the positive or negative consequences of his/her behavior and of being responsible for his/her acts?"), and capacity to plan ("capable of making plans to reach his/her goals?").

Experience was measured assessing a partner's capacity to experience emotions ("capable of experiencing emotions like fear, pain, or joy?"), their capacity to experience refined (or uniquely human) emotions ("capable of experiencing feelings like shame, guilt, or hope?"), and their capacity to experience consciousness ("capable of being aware of him/herself and his/her environment?").

Responses ranged from 0 (*not at all*) to 6 (*totally*). Mind dimensions were computed by adding item scores of each subscale separately. The internal consistency reliabilities (Cronbach's α) reached values of .71 for both scales.

Evil Measure. A direct measure of evil was also used. Participants were asked to respond to a single question: “Compared to other people you know, to what extent is your partner evil?” Responses ranged from 0 (*not at all*) to 6 (*totally*).

Attachment. Attachment styles were assessed using a Spanish adaptation (Fernández-Fuertes, Orgaz, Fuertes, & Carcedo, 2011) of the Experiences in Close Relationships–Revised Scale (ECR-R; Fraley, Waller, & Brennan, 2000). This 18-item version measures two attachment dimensions: anxiety about abandonment and avoidance of intimacy, which were computed by adding the items of each subscale separately (each of which consisted of nine items). The response options ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Cronbach’s alpha reached values of .87 and .85, respectively.

TDV perpetration. Frequency of psychological and physical TDV perpetration in dating relationships was measured using a modified version of the Safe Dates–Psychological Abuse Victimization subscale (Foshee et al., 1998). The original items were reworded to measure TDV perpetration instead of victimization. Specifically, we assessed psychological aggression (e.g., saying things to hurt a partner’s feelings on purpose, bringing up something from the past to hurt a partner, blaming the other for what is going wrong, breaking something that belongs to the other, insulting the other in front of other people, etc.); control (e.g., telling a partner not to talk to someone of the opposite sex, not letting the other person do things with other people); threatening to hurt, and interrupted physical aggression (starting to hit and stopping). Two items were added to assess physical aggression (pushing and hitting). Participants were required to estimate how often they had shown each of those 13 behaviors with their partners. A composite score was calculated by adding all the items of this scale. Responses ranged from 0 (*never*) to 3 (*very often*). Cronbach’s alpha was .82.

Data analysis

Multiple imputation was used to handle missing data. Scale scores were standardized by converting to z-scores, thus ensuring comparable metrics and allowing us to calculate the percentile scores either for TDV perpetration or for attachment dimensions. Before testing hypothesis 1, we classified the participants according to their 33rd and 66th percentile scores for TDV perpetration. This allowed us to classify 450 participants as being “low” (those who scored below the 33rd percentile), 777 as “medium” (between the 33rd and the 66th percentile), and 572 as “high” (higher than the 66th percentile) for TDV perpetration. After testing the homogeneity of the variances using Levene’s test, an ANOVA was computed to compare the dehumanization (agency and experience) and evil measurements of those groups with different

levels of TDV perpetration. In those comparisons in which variances were not homogeneous, Welch's test was used to determine if there were significant differences between the three groups. Post hoc analyses were also computed to verify significant differences between specific groups.

To test hypothesis 2, we repeated the former procedure to compare the participants' scores according to their attachment styles. Converting attachment dimensions into four styles allows the identification of possible differences in response patterns when levels of avoidance and anxiety are combined. Among the different procedures that have been used to establish the four styles from the dimensions (e.g., Park, Crocker, & Mickelson, 2004; Powers et al., 2006), we chose the one that involved the use of percentile scores (e.g., Gonzalez-Mendez et al., 2019; Kaitz et al., 2004). To be precise, we first determined separately the 50th percentile scores for anxiety and avoidance dimensions. Then, they were classified as either "low" (those who scored below the 50th percentile) or "high" (those who scored above the 50th percentile) in each of these two measures. Subsequently, participants were classified into four groups according to their scores for each dimension: secure (35.4% scored low on both dimensions), dismissive (18.3% scored low on anxiety and high on avoidance), preoccupied (23.2% scored high on anxiety and low on avoidance), and fearful (23% scored high on both dimensions). After testing the homogeneity of the variances using the Levene test, an ANOVA was computed to compare the partner perception measures once more. In this way, whether participants with diverse attachment styles differed in their perception of dehumanization (agency and experience) and attribution of evilness was examined. Welch's test was again used in those cases in which variances were not homogeneous, and post hoc analyses were also computed.

Structural equation modeling was used to test the hypothesized paths between the attachment dimensions (anxiety and avoidance), partner perception (agency and experience), attribution of evilness, and TDV perpetration. Covariance structure analyses were computed using LISREL 10.20 software (Jöreskog & Sörbom, 2019). We used the robust maximum likelihood (RML) estimation due to the asymptotic nature of a family of variables (attribution of evilness and TDV perpetration). The goodness-of-fit of the proposed model was examined using the Satorra-Bentler scaled χ^2 index (S-B χ^2), the comparative fit index (CFI), the standardized root mean square residual (SRMR), and the root mean square of error of approximation (RMSEA). Modification indexes and the expected change statistics guided model modifications. The large sample size guaranteed to obtain trustworthy *z*-tests on the significance of parameters and to yield correct model evaluation chi-square probabilities (Bentler & Chou, 1987). The indexes were evaluated according to the following criteria: χ^2/df

≤ 3 , $RMSEA \leq .06$, $SRMR \leq .08$, $CFI \geq .95$. Finally, we tested whether the model was invariant across gender subsamples using multi-group analysis.

Results

Table 1 shows descriptive statistics of the analyzed factors and z-order correlations. Correlations between avoidance and the two dehumanization measures (agency and experience) are those that stand out.

Table 1. Z-order correlations and descriptive statistics for the analyzed variables.

	1	2	3	4	5	<i>M</i>	<i>SD</i>	Range
1. Agency						4.01	1.24	0-6.00
2. Experience	.54**					4.47	1.15	0-6.00
3. Evil	-.24**	-.15*				0.47	0.91	0-6.00
4. Anxiety	-.05*	-.09**	.17**			3.62	1.40	1-7.00
5. Avoidance	-.41**	-.42**	.26**	.18**		2.51	1.12	1-6.44
6. TDV perpetration	-.11**	-.09**	.27**	.21**	.10**	0.25	0.33	0-2.56

Note. * $p < .05$. ** $p < .01$.

A first ANOVA indicated significant differences between the participants classified as low, medium, and high in TDV perpetration (Table 2). Although the average TDV revealed a low frequency for all the strategies reported, the “high” group stood out for reporting a greater number of aggressive behaviors, distributed along a continuum of perpetration. Of the other variables compared, attribution of evilness was the one with the largest effect size. As stated in hypothesis 1, post hoc analyses revealed that those who scored highly for perpetration showed a worse perception of their partner in all measures (a lower agency and experience, as well as a higher evilness) than those who had low scores. Moreover, all groups differed in perception of evilness, with the most negative in those who scored higher in TDV perpetration.

Table 2. ANOVA and post-hoc analyses comparing the partner’s perceptions in participants with different levels of TDV perpetration.

	Low (L)	Medium (M)	High (H)	<i>F</i>	η^2	Post-hoc		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	(2,1796)		L-M	L-H	M-H
Agency	.14 (.95)	.02 (.99)	-.13 (1.0)	10.45***	.012	-	.28***	.15*
Experience	.08 (1.0)	.02 (.98)	-.09 (.99)	4.39*	.005	-	.18*	-
Evil	-.22 (.80)	-.11 (.74)	.32 (1.3)	35.94****	.053	-.11*	-.55***	-.44***
TDV perpetration	-.76 (.00)	-.34 (.20)	1.06 (1.1)	2387.26****	.558	-.42***	-1.83***	-1.41***

Note. † Welch’s test, Means and standard deviations are z-scores

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

ANOVA was computed to examine partner perception in adolescents with different attachment styles: secure (those who scored low on both dimensions), dismissive (low on

anxiety and high on avoidance), preoccupied (high on anxiety and low on avoidance), and fearful (high on both dimensions). As shown in Table 3, the results of ANOVA partially supported hypothesis 2. As expected, those who scored higher for avoidance (i.e., dismissive and fearful) perceived less agency and experience in their partner than those who scored lower (i.e., secure and preoccupied). Post hoc analyses revealed differences in most contrasts. However, the secure-preoccupied pair only differed in that the former perceived higher experience than the latter. Similarly, the dismissive and fearful only differed in attribution of evilness, the latter showing a higher score for this variable. Overall, all the groups differed from each other in their attribution of evilness, except the secure and preoccupied, who showed the lowest scores for that factor. In this ANOVA, attribution of evilness again revealed the largest effect size.

Table 3. ANOVA and post-hoc analyses comparing the partner's perceptions in participants with different attachment styles

	Secure (S)	Dismissive (D)	Preoccupied (P)	Fearful (F)	<i>F</i> (3,927,83)	η^2	Post-hoc					
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)			S-D	S-P	S-F	D-P	D-F	P-F
Agency	.43 (.85)	-.41 (1.0)	.28 (.91)	-.27 (.97)	89.28 ^{w***}	.128	.84 ^{***}	-	.69 ^{***}	-.69 ^{***}	-	.55 ^{***}
Experience	.45 (.79)	-.32 (.99)	.26 (.90)	-.35 (1.0)	95.37 ^{w***}	.130	.77 ^{***}	.19 ^{**}	.80 ^{***}	-.58 ^{***}	-	.60 ^{***}
Evil	-.28 (.69)	.05 (.97)	-.17 (.85)	.34 (1.2)	40.10 ^{w***}	.065	-.33 ^{***}	-	-.63 ^{***}	.22 ^{**}	-.29 ^{***}	-.52 ^{***}

Note. ^w Welch's test, Means and standard deviations are z-scores

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

To test the hypothesized paths between the factors, an SEM was estimated and re-estimated until fit was achieved ($S-B \chi^2(560, N = 1799) = 1612.82, p < .001, CFI = .95, RMSEA = .04, SRMR = .04$). As shown in Figure 2, the SEM supported most of the hypotheses. Specifically, hypothesis 1 was partially supported to the extent that only attribution of evilness was directly related to TDV perpetration, but agency and experience were not. Therefore, it was not possible to confirm that greater partner dehumanization increases the risk of TDV. In relation to hypothesis 2, avoidance was negatively associated with both agency and experience, and positively associated with attribution of evilness. This allowed confirmation that greater avoidance is associated with a more negative partner perception. The SEM also supported hypothesis 3, since the avoidant and anxious attachment dimensions showed covariation. The model showed a single indirect path from avoidance to TDV through attribution of evilness ($\beta = .27, p \leq .001$), which partially supported hypothesis 4. Therefore, we only found evidence that evil mediates the relationship between avoidance and TDV perpetration. Finally, hypothesis 5 could not be confirmed because the SEM did not show the existence of a positive

relationship between anxiety and TDV. Moreover, anxiety was only associated with a greater perception of evil.

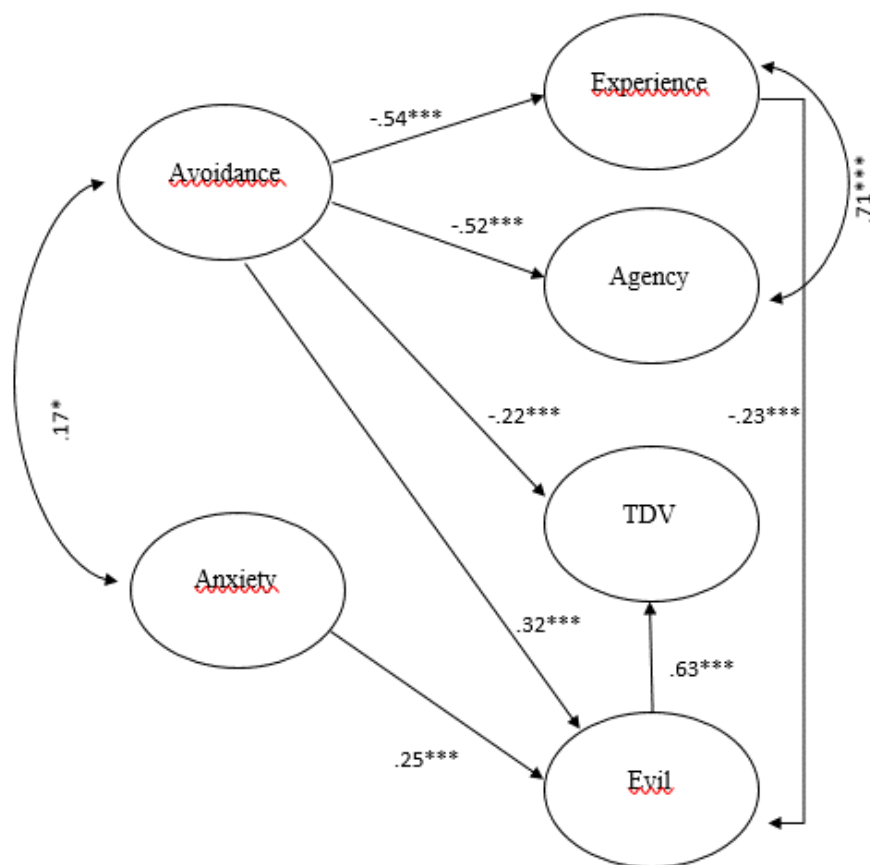


Figure 2. Estimated Structural Model (Standardized Coefficients) showing paths from attachment styles, dehumanization, and evil to TDV perpetration.

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

Once the SEM was adjusted for the entire sample, we tested whether the model was invariant across gender subsamples. The models showed a good fit for girls (S-B χ^2 (518, $N = 910$) = 1194.67, $p < .001$, CFI = .95, RMSEA = .04, SRMR = .05) and boys (S-B χ^2 (520, $N = 889$) = 1131.63, $p < .001$, CFI = .95, RMSEA = .04, SRMR = .04). Comparison between both models indicated the same paths, with some exceptions (see Figure 3). While the association between experience and evilness was only significant for boys, the path between avoidance and TDV was only significant in the case of girls. Avoidant and anxious attachment dimensions only showed covariation among girls. Finally, the model also supported the existence of a single indirect path from avoidance to TDV through attribution of evilness for both girls ($\beta = .50$, $p \leq .001$) and boys ($\beta = .20$, $p \leq .05$).

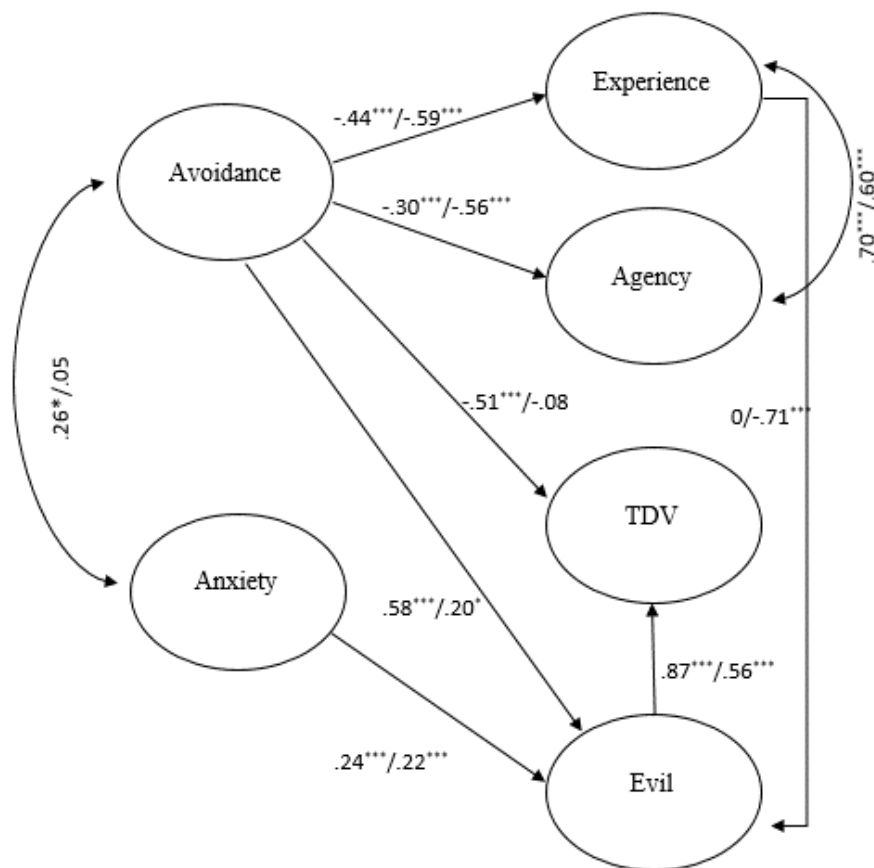


Figure 3. Estimated Structural Model (Standardized Coefficients) for both genders. The slashes separate parameter estimation for girls and boys.

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

Discussion

The first aim of this study was to analyze whether dehumanization of one's partner (lesser perceived agency and experience) and attribution of evilness to one's partner were associated with a higher level of TDV perpetration and specific attachment styles. Given that persistent perpetration has been found to be more likely when initial violence is more frequent and serious (Whitaker, Le, & Nolon, 2010), we expected to find that dehumanization, attribution of evilness, and violence towards the partner were related. The results supported this first hypothesis, thus indicating that the teenagers classified as high in TDV perpetration maintain a more dehumanized view of their partners (a lower agency and experience), as well as a higher attribution of evilness. This group of participants stood out for indicating a greater number of aggressive behaviors, distributed along a continuum of perpetration. Hence, although the frequency reported of each behavior seems low, it is still worrisome because of its negative consequences.

So far, research on dehumanization has focused on the analysis of intergroup relationships, demonstrating that depriving a group of humanity is associated with a greater predisposition to harm their members. However, few studies have analyzed whether a partner's dehumanized perception was associated with intimate partner violence (Pizzirani & Karantzas, 2019). The results of the first ANOVA support that dehumanization and attribution of evilness allow differentiation of the cases of highest and the lowest TDV perpetration in early romantic relationships. However, denial of agency and experience seems to be related to more frequent TDV perpetration because it finds justification in attribution of evilness, which implies a moral judgment that helps justify the harm (Morera, Quiles, Correa, Delgado, & Leyens, 2018).

As stated in hypothesis 2, those who scored higher for avoidance (classified as dismissive and fearful) perceived less humanity in their partner than the other participants did. In addition, the dismissive and fearful teenagers did not differ from each other in any of the measures used. These results are consistent with the attachment framework, which proposes that greater avoidance is associated with a more negative view of others (Bartholomew & Horowitz, 1991). The results of the current study also offer a more detailed picture of what that negative view implies. While both groups (dismissive and fearful) coincide in a more dehumanized view of others (less agency and experience), only the fearful perceived more evilness in their partner. To explain why the fearful participants stand out in their attribution of evilness, it is necessary to take into account the characteristics of the fearful attachment. According to Paetzold, Rholes, and Kohn (2015), the motives to avoid others would be different for dismissive and fearful participants. While the former would avoid intimacy due to the possibility of rejection, the fearful would avoid their partner because of fear. Therefore, fear could account for evil perception in those cases, although it would have its origin in their early relationships with their caregivers. Interestingly, the secure and preoccupied participants only differed in their perception of experience, but not in the other two measures. In this case, a lower perception of a partner's ability to feel could reinforce fear of abandonment in those who are preoccupied. In other words, their partner view (lower experience) would contribute to bolster attentional bias towards signs of rejection and ruminative thought (Massa, Eckhardt, Sprunger, Parrott, & Subramani, 2017).

The second objective of this study was to develop an SEM that allowed integration of the links between the factors analyzed above. The SEM supported the existence of a positive association between attribution of evilness and TDV perpetration, whereas agency and experience did not show any association with TDV. This indicates that denying humanity does not seem enough to predict violence. However, the SEM did show an unspecified negative path

from experience to evil, but this was only significant among the boys. This reveals that perceiving greater capacities like consciousness, sensations, and feelings in a female partner reduces the attribution of evilness among male adolescents. Although this requires further analysis, it could be because such characteristics are considered incompatible with evil from the perspective of traditional female roles.

The attribution of evilness emerges in the model as an important risk factor in early romantic relationships. As claimed by the moral disengagement theory (Bandura, 2016), people may use different mechanisms to disengage their moral self-sanctions when they harm someone. One of these mechanisms is to blame the other, which is often used by batterers with their partners (Vecina & Chacón, 2019). Transferring responsibility allows the preservation of the moral self-concept despite exercising violence. However, attributing evilness goes beyond blaming others for concrete actions. It implies a global negative vision that would generalize a partner's responsibility for different situations.

The model also supports the proposed idea that highly avoidant teenagers are more likely to deprive their partners of agency and experience, as well as attribute them evilness. By contrast, being highly anxious only predicts attribution of evilness. All these results are consistent with previous studies indicating an association of avoidance with a negative view of others (Bartholomew & Horowitz, 1991), which does not occur with anxiety. They are also consistent with previous results indicating that only highly avoidant batterers show a really negative partner assessment, whereas those who are secure or preoccupied maintain a more positive view despite manifesting violence (Gonzalez-Mendez et al., 2019). Although anxiety often being associated with TDV (Bonache et al., 2017), the SEM did not confirm this link. This suggests that the involvement in TDV of the highly anxious teenagers may have more to do with their emotion dysregulation (Zimmermann & Iwanski, 2014) than with their partner's negative view.

The SEM has allowed the connection of the findings of the attachment and dehumanization frameworks. It supports that a partner's dehumanization is easier when the attachment style leads teenagers to distrust their partners (i.e., when they are highly avoidant). However, a high score in this dimension often prevents TDV perpetration because adolescents with this characteristic tend to withdraw from conflicts (Bonache et al., 2017). The negative association detected in our model between avoidance and TDV is consistent with these latter results, but it was only significant among girls. Moreover, being highly avoidant is not enough to predict violence against a partner. It is necessary to attribute evilness as indicated by the

indirect association between avoidance and TDV. This indirect association evil also points to attribution of evilness as the strongest predictor in the model.

The results from this study have implications for diversity by providing evidence from a sample of adolescents from diverse socioeconomic strata, in a cultural context different to that of North America. The study also extends to adolescents the findings that had only been achieved in adults, such as the association between dehumanization and violence against a partner. The invariance of the model was also tested across gender subsamples.

Limitations and future direction

The current study has some limitations that need to be considered, both to interpret the results and to establish new avenues of research. Firstly, the study used a cross-sectional design, which does not allow us to draw conclusions about whether or not dehumanization and attribution of evilness are prior to TDV perpetration. Hence, a longitudinal design would be necessary to prove that those variables are associated with greater violence persistence. From the attachment framework, the tendency to deny humanity to others also seems to point to an early beginning in people's lives. However, it is still necessary to analyze whether the dynamics within early relationships may change the perception of others. Dehumanization and attribution of evilness may be cause of harmful and immoral behavior, but they may also be consequences of negative interpersonal relationships (Bastian et al., 2014). In this regard, future research could examine the links between the factors analyzed in this study and the concept of meta-dehumanization (Kteily, Hodson, & Bruneau, 2016). Secondly, the use of a single item to assess evilness raises questions about its role in the model. Therefore, it would be necessary to replicate this model using a more appropriate measure of evil. Moreover, the constrained operationalization of dehumanization as a mind construct makes it necessary to examine other ways of understanding dehumanization, such as considering that people have characteristics of animals and machines (Haslam, 2006).

Implications for intervention

The findings allow an understanding of how the perception of agency and experience may prevent the attribution of evilness and TDV perpetration in early relationships. Programs aimed at preventing TDV could benefit from focusing on the mechanisms that especially lead boys to attribute evilness to romantic partners, which includes perception of agency and experience. For example, adolescents involved in TDV are often impulsive and emotional regulation is among the targets of prevention programs. Taking advantage of emotional training to reinforce a partner's perception of agency and experience could be useful. In addition, changing attitudes

could be easier whether we consider that they could be based on the perception of partner as someone evil or devoid of humanity.

The association between attachment dimensions and dehumanized perception may also help guide intervention, since practitioners have a wider map of the conceptions in which to try to introduce changes. Although attachment styles are relatively stable, adolescents seem more susceptible to changes in attachment compared to adults (Jones et al., 2018), especially when they belong to at-risk groups (Pinquart, Feußner, & Ahnert, 2013). The association found between attachment and the other factors can provide insight for the development and tailoring of prevention strategies. For example, promoting experience perceived could be more difficult when it converges with the fear of abandonment. Therefore, strategies should vary depending on attachment styles.

Conclusion

This study takes the research on dehumanization out of the lab (Meagher, 2019), and it extends its analysis by taking into account both the research on TDV and the broader attachment framework. The findings provide evidence of the links between a higher level of TDV, perception of the mind of one's partner (agency and experience), and the attribution of evilness of one's partner, which had previously only been studied regarding adult intimate partner violence. As far as we know, this is also the first study that provides evidence of the association between mind perceptions, attribution of evilness and the participant's attachment styles. Moreover, the SEM has allowed us to integrate the predictions from attachment and dehumanization frameworks, showing how attachment dimensions and dehumanization need attribution of evilness to predict violence.

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