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# Measuring Forms and Functions of Aggression in Portuguese Young Adults: Validation of the Peer Conflict Scale

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Paula Vagos<sup>1,2</sup> , Patrícia I. Marinho<sup>3</sup>,  
Josefa N. S. Pandeirada<sup>4</sup>, Pedro F. S.  
Rodrigues<sup>5</sup>, and Monica Marsee<sup>6</sup>

## Abstract

This work reports a preliminary validation of the Peer Conflict Scale (PCS) for Portuguese young adults (ages 18–30 years). This instrument assesses aggression considering two of its forms (overt and relational aggression) and its two functions (reactive and proactive aggression). The initially proposed 4-factor model provided the best fit for our data and was partially invariant by sex. All subscales revealed good reliability based on internal consistency and test–retest indicators. Construct validity was obtained through the investigation of sex differences that align with previous findings on aggressive behavior and in relation to emotion regulation strategies. These initial results suggest that the PCS, originally designed for adolescents, is a promising tool to assess aggression in young adults, notwithstanding the need of additional psychometric studies to further establish the quality of this instrument.

## Keywords

aggression, Peer Conflict Scale, psychometrics, emotion regulation, young adults

## Introduction

Aggressive behavior may be thought of as a multidimensional construct based on its forms (i.e., overt/physical and covert/relational aggression) and functions (i.e., reactive and proactive aggression; Marsee et al., 2011). Overt aggression<sup>1</sup> consists of using behaviors to hurt others' physical well-being (e.g., hitting or kicking), whereas relational aggression includes behaviors

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<sup>1</sup>INPP, Universidade Portucalense Infante D. Henrique, Porto, Portugal

<sup>2</sup>CINEICC, University of Coimbra, Portugal

<sup>3</sup>SASUA, University of Aveiro, Aveiro, Portugal

<sup>4</sup>William James Center for Research, University of Aveiro, Aveiro, Portugal

<sup>5</sup>CIPsi, School of Psychology, University of Minho, Braga, Portugal

<sup>6</sup>Iowa State University, Ames, IA, USA

## Corresponding Author:

Paula Vagos, Department of Education and Psychology, Universidade Portucalense Infante D. Henrique, R. Dr. António Bernardino de Almeida 541, Porto 4200-072, Portugal.

Email: [pvagos@upt.pt](mailto:pvagos@upt.pt)

intended at damaging the social status and friendships of the victim (e.g., spreading rumors or social exclusion; [Bailey & Ostrov, 2008](#)). Proactive aggression implies a calculated and goal-oriented act aimed to harm others to obtain a gain or impose dominance, whereas reactive aggression occurs in response to a perceived provocation from others, thus corresponding to an impulsive and anger-oriented form of behavior (e.g., [Bailey & Ostrov, 2008](#); [Marsee et al., 2011](#)).

Various studies have demonstrated the usefulness of considering this multidimensional approach, particularly with younger age groups (e.g., [Marsee et al., 2011, 2008](#)). For example, relational and overt aggression correlate differently with different personality disorders (e.g., [Schmeelk et al., 2008](#); [White et al., 2015](#)). Furthermore, those dimensions have been distinctively associated with anxiety in adolescents, and this association was moderated by sex ([Marsee et al., 2008](#)). Sex differences have also been reported on these dimensions, with men manifesting more overt and proactive aggression than women (e.g., [Bailey & Ostrov, 2008](#); [Ostrov & Houston, 2008](#)). Regarding relational aggression, some studies reveal higher levels in men than in women (e.g., [Bailey & Ostrov, 2008](#); [Schmeelk et al., 2008](#)), whereas others report the opposite pattern (e.g., [Hess & Hagen, 2006](#)), and others mention no significant sex differences (e.g., [Ostrov & Houston, 2008](#)).

The Peer Conflict Scale (PCS) was developed by [Marsee et al. \(2011\)](#) to assess aggression in this multidimensional perspective as perpetrated by adolescents and has revealed good psychometric characteristics ([Marsee et al., 2011](#); [Vagos et al., 2014](#)). To our knowledge, no work has yet addressed the usefulness of the PCS to assess aggression in young adults. Peer aggression is relatively stable from childhood into adulthood ([Kokko & Pulkkinen, 2005](#)) and so is visible in college samples, both in its physical and relational forms. Its practice has been previously associated with internalizing symptoms (e.g., depression and loneliness) and externalizing behaviors (e.g., alcohol and drug use; [Storch et al., 2004](#)), as well as with poorer academic achievement ([Uludag, 2013](#)). Additionally, peer aggression seems to be based on several individual (e.g., personality and attribution style) and situational factors (e.g., relationship quality; [Thomas, 2019](#)) that still require further understanding and preventing efforts. As such, and considering that previous works have neglected the overt form and the functions of aggression in young adults ([Thomas, 2019](#)), it seems relevant to provide instruments to make a proper assessment of aggression within young adults, particularly those that evaluate the forms and functions of aggression, as is the case of the PCS.

This study presents initial psychometric evidence on the PCS for young adults using a Portuguese sample. The measurement model (see note of Table 2 in the [Supplementary Material](#) on which competing models were tested), measurement invariance on the best fitting model, reliability of measures taken from the best fitting model, and construct validity of scores of those measures were analyzed. The latter was addressed via between-sex comparisons and in relation to difficulties in regulating emotions. Regarding sex differences, we predicted that overt aggression would be higher in men than in women; given the inconsistent results regarding relational aggression and the functions of aggression, no sex difference predictions are presented. Emotion regulation, which encompasses difficulties in recognizing ones' emotional state, in managing emotions (particularly negative emotions), or in using effective strategies to regulate ones' emotions (e.g., [Gratz & Roemer, 2004](#)), has been related in different ways with aggression (e.g., [Robertson et al., 2012](#)). For example, a positive correlation between emotional dysregulation and aggressive behaviors (particularly physical aggression) has been demonstrated ([Holley et al., 2017](#)). Emotional dysregulation has also been shown to be a significant mediator of the relation between negative emotional states and physical aggression (e.g., [Garofalo & Velotti, 2017](#)). In this study, we assessed two dimensions of emotional regulation—cognitive reappraisal and expressive suppression—to explore the construct validity of the PCS. The first occurs at the beginning of the process of experiencing an emotion and refers to the way situations are construed or interpreted in order to diminish their emotional impact; thus, it is traditionally considered to be an adaptive strategy. On the other hand, expressive suppression refers to the inhibition or reduction of the

expression of ongoing emotions and takes place at the response stage, when response tendencies have already been established; this is usually considered to be maladaptive (Gross & John, 2003). Therefore, we predicted that higher practice of aggression would relate negatively and positively with cognitive reappraisal and expressive suppression, respectively.

## Method

### Participants

Data were collected from 506 higher education students from the North, Center, and Lisbon regions of Portugal. After applying the inclusion criteria (i.e., ages 18–30 years and having fewer than 5% of missing values on the PCS, which were dealt with via Expected Maximization imputation), our final sample included 462 participants ( $M_{\text{age}} = 20.86$ ,  $SD = 2.22$ ), of which 425 were full-time students (92%) and 36 were working students (7.8%). Participants responded during an allowed class period and provided written informed consent; no credit or incentives were given for participation. Concerning sex, 73.4% ( $n = 339$ ) were women and 26.6% ( $n = 123$ ) were men (see Note 1 in the [Supplementary Material](#)); men were significantly older ( $M = 21.33$ ,  $SD = 1.99$ ) than women ( $M = 20.69$ ,  $SD = 2.28$ ),  $t(460) = -2.78$ ,  $p = .006$ , and men and women were evenly distributed in relation to being a full-time or working student ( $X^2(1) = .02$ ,  $p = .88$ ). To analyze test–retest reliability, a geographically convenient subsample of 110 participants filled the PCS twice with a 3–4-week interval.

### Instruments<sup>2</sup>

The PCS (Portuguese version: [Vagos et al., 2014](#)) comprises 40 items that divide into four ten-item subscales: reactive overt aggression, proactive overt aggression, reactive relational aggression, and proactive relational aggression (in the [Supplementary Material](#), see Table 1 for the item subscale correspondence and Note 2 regarding small changes in the items as applied to young adults). Responses are given on a 5-point rating scale (1 = “has little to do with me” to 5 = “has everything to do with me”). Higher scores correspond to higher levels of self-reported aggression. Using this instrument with adolescent samples provided evidence for its four-factor internal structure, internal consistency of its measures ( $\alpha \geq .76$ ), applicability to male and female participants ([Marsee et al., 2011](#); [Vagos et al., 2014](#)) and to normative, detained, and residential samples, and construct validity in relation to externalizing variables ([Marsee et al., 2011](#)). The psychometric properties of the PCS in the current study are presented in the Results and Discussion section.

The Emotion Regulation Questionnaire (ERQ; Portuguese version: [Vaz & Martins, 2009](#)) contains 10 items measuring cognitive reappraisal and expressive suppression. This two-factor model fitted the data via exploratory factor analyses; cognitive reappraisal and expression suppression obtained internal consistency values of .76 and .65, respectively, in the Portuguese validation study ([Vaz & Martins, 2009](#)), and of .87 and .67, respectively, in the current sample.

## Results and Discussion

### Internal Structure and Measurement Invariance Analyses<sup>3</sup>

Confirmatory factor analyses results for four competing models are presented in Table 2 of the [Supplementary Material](#) (see note of Table 2 for each models’ constitution). All models showed adequate absolute fit (i.e., Comparative Fit Index (CFI)  $\geq .92$  combined with Root Mean Square Error of Approximation (RMSEA)  $\leq .07$ ; [Hair et al., 2005](#)). Alike previous works ([Marsee et al., 2008](#); [Vagos et al., 2014](#)), the four-factor measurement model presented the best fit in comparison

with the other competing models (i.e., highest CFI value and lowest RMSEA and Weighted Root Mean Square Residual (WRMR) values:  $\chi^2(734) = 1212.23, p < .001$ , CFI = .965; RMSEA = .038; WRMR = 1.134); this model was a significant improvement in relation to the next best fitting model (two forms of aggression model;  $\Delta\chi^2(5) = 154.45, p < .001$ ). Loading values for the four-factor model are presented in Table 1 of the [Supplementary Material](#) and were always of practical significance (i.e., each item explained at least 25% of the variance of the latent variable; [Hair et al., 2005](#)). All four measures achieved good internal consistency values (i.e., from .83 for reactive relational aggression to .90 for proactive overt aggression (see Table 1—[Supplementary Material](#)). Test–retest correlation values for the four measures were significant and of moderate magnitude (range between .48 and .58; see Table 3—[Supplementary Material](#)). Likewise, paired mean tests comparing the two assessment moments indicate no significant differences for proactive relational ( $z = -1.42, p = .16$ ) and reactive overt aggression ( $z = -1.70, p = .09$ ); for proactive overt ( $z = -2.67, p = .02$ ) and reactive relational aggression ( $z = -3.91, p < .001$ ), values decreased significantly over time (see Table 3—[Supplementary Material](#)). Previous works had not analyzed temporal reliability, and our results indicate it being moderate; this may associate to the normative characteristics of the current sample, given that history of previous aggressive behavior is the best predictor of current aggressive behavior, particularly in more intense cases ([Piquero et al., 2012](#)).

A forward approach to sex-based measurement invariance was adopted ([Dimitrov, 2010](#)). The four-factor model was a good fit for the male and female samples taken separately, thus pointing to configural invariance ( $\chi^2(734) = 1000.83, p < .001$ , CFI = .962; RMSEA = .054; WRMR = 1.065 for male participants and  $\chi^2(734) = 969.59, p < .001$ , CFI = .972; RMSEA = .031; WRMR = 1.060 for female participants; cf. Table 2—[Supplementary Material](#)). Loading values were again of practical significance, except for item 4 for male participants, which nevertheless met the minimal level of contribution to the interpretation of the latent variable (i.e.,  $\lambda > .30$ ; [Hair et al., 2005](#)). Because some response options were lacking in different items for men and women, the remaining measurement invariance analyses relied on data that constricted 5 to 3 response options (see [Supplementary Material](#)—Note 3). Partial metric invariance was then achieved after relaxing the intercept of item 4 across groups ( $\Delta\chi^2(35) = 42.51, p = .18$ ; Table 2—[Supplementary Material](#)). Next, partial scalar invariance was found after relaxing the thresholds of items 2, 36, and 38 ( $\Delta\chi^2(33) = 47.23, p = .052$ ; Table 2—[Supplementary Material](#)). Because only a minority of parameters were considered differently by men and women, sex-based comparisons may be made credibly.

### Construct Validity Analyses

A mixed ANOVA was conducted, including sex was a between-subjects variable and the different measures of aggression as the within-subject factor (with Greenhouse–Geisser correction). Results revealed significant main effects of sex ( $F(1, 438) = 29.37, p < .001, \eta p^2 = .06$ ) and of aggression ( $F(2.27, 993.03) = 100.38, p < .001, \eta p^2 = .19$ ), but the Sex X Aggression interaction was not statistically significant ( $F(2.27, 993.03) = 1.51, p = .22$ ). This suggests that the same pattern of results was found when comparing men and women on the aggression measures and when comparing the aggression measures within men and within women. Specifically, men scored significantly higher than women on all four subscales ( $p$  for all between-gender comparisons  $< .001$ ; see [Supplementary Material](#)—Note 4), which aligns with previous international studies ([Bailey & Ostrov, 2008](#)) and Portuguese work with adolescents ([Vagos et al., 2014](#)). Also, scores among the four subscales differed significantly for both men and women ( $p$  for all between-measures of aggression comparisons  $< .001$ ), except for the comparison between reactive overt and reactive relational aggression ( $p = .591$  for men and  $p = 1.00$  for women). The direction of these comparisons indicates that both men and women scored lowest on proactive overt, followed by proactive relational aggression. Furthermore, there was a nonsignificant tendency for women to report more reactive relational aggression than overt relational aggression, whereas the opposite

tendency was found in men (see descriptive values in Table 3—[Supplementary Material](#)). As such, the reactive function of aggression prevails for both sexes as previously found for adolescents (Vagos et al., 2014), although men may prefer to do it in an overt/physical way and women in a covert/relational way, as compared to the proactive function of aggression.

Regarding associations with the ERQ (see [Supplementary Material](#)—Note 5), aggression correlated negatively with cognitive reappraisal, though only the association with proactive relational aggression was significant ( $r_s = -.13, p < .01$ ). This suggests that those who engage in proactive relational aggression are less prone to reappraise the situation to better manage emotional arousal or have more difficulties finding alternative meanings for perceived provocations. In turn, aggression correlated positively with emotional suppression, but only significantly for the proactive measures ( $r_s = .16$  and  $r_s = .14, ps < .01$ , for overt and relational aggression, respectively; see [Supplementary Material](#)—Table 3). Proactive aggression, if considered a delayed behavior in relation to experiencing negative emotions, may result from suppressing emotions (e.g., anger) that are experienced after a provocation. Such reasoning is expressed in some of the items used to evaluate proactive aggression (e.g., item 9 that refers to a non-identified desire that may or may not be retaliatory) and is in line with only proactive aggression measures being positively associated with emotional suppression.

## Conclusion

Aggression is present in and impacts learning environments across various levels, including higher education (Keashly & Neuman, 2010), which represents a key developmental context for young adults. The PCS showed to be an adequate instrument to assess aggression in male and female young adults, alike what was previously found for adolescents (e.g., Marsee et al., 2011; Vagos et al., 2014), thus providing the opportunity to explore the characteristics and developmental trajectories of the multiple dimensions of aggression. Nevertheless, future work should seek more evidence on the validity and reliability of this instrument, thus surpassing limitations to the generality of findings based on characteristics of the current sample (e.g., low levels of aggression; gender-biased sample). This could be achieved, for example, by using larger, gender-balanced, and diverse samples (e.g., nonstudent samples, young adult clinical samples, or samples of young adults with particularly high levels of aggression). Also, studies have seldom related the forms and functions of aggression with emotional regulation, particularly in adults; so, our proposed interpretation of the current findings is exploratory and should be further explored. Additionally, evidence of the construct validity of the instrument in relation to other constructs should be pursued. Still, our results add to the growing literature demonstrating that different dimensions of aggression relate differently to other psychological indicators, namely, in this case, to cognitive and affective dimensions of emotional regulation. A better understanding of aggression, and how to assess it, will allow us to develop more effective toolkits to understand and to manage it across various psychoeducational settings.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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**ORCID iD**

Paula Vagos  <https://orcid.org/0000-0003-4372-3930>

**Supplementary Material**

Supplementary material for this article is available online.

**Notes**

1. We acknowledge that relational aggression may be overt, wherein the aggressor is identifiable when practicing an aggressive act toward the victim. Still, to maintain the terminology previously used within the Peer Conflict Scale, we use the term “overt” to refer to a more physical form of aggression.
2. Data on three additional questionnaires not related to the topic of this work were also collected.
3. Data were not multivariate normal (Mardia’s multivariate normality test = 525002.9,  $p < .001$ ). As such, the weighted least square mean and variance adjusted estimator was used for the internal structure and measurement invariance analyses. These analyses were carried out using the Mplus v74 (Muthén & Muthén, 2012).

**References**

- Bailey, C. A., & Ostrov, J. M. (2008). Differentiating forms and functions of aggression in emerging adults: Associations with hostile attribution biases and normative beliefs. *Journal of Youth and Adolescence*, 37, 713-722. doi:10.1007/s10964-007-9211-5
- Dimitrov, D. M. (2010). Testing for factorial invariance in the context of construct validation. *Measurement and Evaluation in Counseling and Development*, 43, 121-149. doi:10.1177/0748175610373459
- Garofalo, C., & Velotti, P. (2017). Negative emotionality and aggression in violent offenders: The moderating role of emotion dysregulation. *Journal of Criminal Justice*, 51, 9-16. doi:10.1016/j.jcrimjus.2017.05.015
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26, 41-54. doi:10.1023/B:JOBA.0000007455.08539.94
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348-362. doi:10.1037/0022-3514.85.2.348
- Hair, J. F. Jr, Black, W. C., Babin, B. J., & Anderson, R. E. (2005). *Multivariate data analysis* (7th ed.). Prentice-Hall.
- Hess, N. H., & Hagen, E. H. (2006). Sex differences in indirect aggression. *Evolution and Human Behavior*, 27, 231-245. doi:10.1016/j.evolhumbehav.2005.11.001
- Holley, S. R., Ewing, S. T., Stiver, J. T., & Bloch, L. (2017). The relationship between emotion regulation, executive functioning, and aggressive behaviors. *Journal of Interpersonal Violence*, 32(11), 1692-1707. doi:10.1177/0886260515592619
- Keashly, L., & Neuman, H. (2010). Faculty experiences with bullying in Higher Education. *Administrative Theory & Praxis*, 32(1), 48-70. doi:10.2753/ATP1084-1806320103
- Kokko, K., & Pulkkinen, L. (2005). Stability of aggressive behavior from childhood to middle age in women and men. *Aggressive Behavior*, 31(5), 485-497. doi:10.1002/ab.20063
- Marsee, M. A., Barry, C. T., Childs, K. K., Frick, P. J., Kimonis, E. R., Muñoz, L. C., Aucoin, K. J., Fassnacht, G. M., Kunimatsu, M. M., & Lau, K. S. L. (2011). Assessing the forms and functions of aggression using self-report: Factor structure and invariance of the peer conflict scale in youths. *Psychological Assessment*, 23, 792-804. doi:10.1037/a0023369
- Marsee, M. A., Weems, C. F., & Taylor, L. K. (2008). Exploring the association between aggression and anxiety in youth: A look at aggressive subtypes, gender, and social cognition. *Journal of Child and Family Studies*, 17, 154-168. doi:10.1007/s10826-007-9154-1
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus users guide* (7th ed.), Los Angeles, CA: Muthén & Muthén.

- Ostrov, J. M., & Houston, R. J. (2008). The utility of forms and functions of aggression in emerging adulthood: Association with personality disorder symptomatology. *Journal of Youth and Adolescence*, 37, 1147-1158. doi:[10.1007/s10964-008-9289-4](https://doi.org/10.1007/s10964-008-9289-4)
- Piquero, A. R., Carriaga, M. L., Diamond, B., Kazemian, L., & Farrington, D. P. (2012). Stability in aggression revisited. *Aggression and Violent Behavior*, 17, 365-372. doi:[10.1016/j.avb.2012.04.001](https://doi.org/10.1016/j.avb.2012.04.001)
- Roberton, T., Daffern, M., & Bucks, R. S. (2012). Emotion regulation and aggression. *Aggression and Violent Behavior*, 17, 72-82. doi:[10.1016/j.avb.2011.09.006](https://doi.org/10.1016/j.avb.2011.09.006)
- Schmeelk, K. M., Sylvers, P., & Lilienfeld, S. O. (2008). Trait correlates of relational aggression in a nonclinical sample: DSM-IV personality disorders and psychopathy. *Journal of Personality Disorders*, 22, 269-283. doi:[10.1521/pedi.2008.22.3.269](https://doi.org/10.1521/pedi.2008.22.3.269)
- Storch, E. A., Bagner, D. M., Geffken, G. R., & Baumeister, A. L. (2004). Association between overt and relational aggression and psychosocial adjustment in undergraduate college students. *Violence and Victims*, 19(6), 689-700. doi:[10.1891/vivi.19.6.689.66342](https://doi.org/10.1891/vivi.19.6.689.66342)
- Thomas, R. (2019). College student peer aggression: A review with applications for colleges and universities. *Aggression and Violent Behavior*, 48, 218-229. doi:[10.1016/j.avb.2019.08.013](https://doi.org/10.1016/j.avb.2019.08.013)
- Uludag, O. (2013). The influence of aggression on students' achievement: Evidence from higher education. *Procedia - Social and Behavioral Sciences*, 89, 954-958. doi:[10.1016/j.sbspro.2013.08.963](https://doi.org/10.1016/j.sbspro.2013.08.963)
- Vagos, P., Rijo, D., Santos, I. M., & Marsee, M. A. (2014). Forms and functions of aggression in adolescents: Validation of the Portuguese version of the peer conflict scale. *Journal of Psychopathology and Behavioral Assessment*, 36, 570-579. doi:[10.1007/s10862-014-9421-6](https://doi.org/10.1007/s10862-014-9421-6)
- Vaz, F., & Martins, C. (2009). *Diferenciação e regulação emocional na idade adulta: Tradução e validação de dois instrumentos de avaliação para a população portuguesa* [Master's thesis, University of Minho]. <http://repositorium.sdum.uminho.pt/handle/1822/9898>
- White, B. A., Gordon, H., & Guerra, R. C. (2015). Callous-unemotional traits and empathy in proactive and reactive relational aggression in young women. *Personality and Individual Differences*, 75, 185-189. doi:[10.1016/j.paid.2014.11.031](https://doi.org/10.1016/j.paid.2014.11.031)