Assessing and detecting response bias in self and referenced attitude towards conflict in family cases

Evaluación y detección del sesgo de respuesta en la actitud auto-informada y referenciada hacia el conflicto en casos de familia

Ramón Arce*, Verónica Marcos, Jéssica Sanmarco & Bárbara Castro
Unidad de Psicología Forense, University of Santiago de Compostela, Spain.

Abstract
Background/Objective: Contentious couple breakup is associated to adverse outcomes for couple members and offspring. Parental attitudes towards conflict resolution are a robust predictor of the litigiousness of the breakup. Nonetheless, response bias should be strongly suspected in parental attitude reported in this setting. Thus, a field study with the aim of knowing the prevalence and magnitude of the response bias and of ascertaining empirically valid criteria to classify the suspect of response bias was designed. Method: A total of 2,797 adults, 50.9 % men, with underage children aged from 21 to 68 years (M = 40.41), 2,488 married (without previous breakups), 204 involved in a mutual agreement separation and 105 in a contentious separation, answered to a measure of self-reported and referenced attitude towards conflict resolution. Results: The results exhibited that parents of the contentious and mutual agreement separation groups biased their answers. Likewise, the results provided empirical criteria for response bias classification. Epidemiologically, the observed probability of response bias was of .629 [.537, .721] in the group of parents of contentious separation and of .377 [.310, .444] in the group of parents of mutual agreement separation. Conclusions: The implications of the results for the design and implementation of mediation and intervention programs are discussed.

Keywords: contentious couple breakup; mutual agreement separation; simulation; dissimulation; epidemiology.

* Correspondence: Ramón Arce, Facultad de Psicología. E-mail: ramon.arce@usc.es
Resumen
Antecedentes/objetivo: La ruptura de pareja implica efectos adversos para los progenitores e hijos. La actitud de los progenitores hacia la resolución del conflicto es un predictor robusto de la litigiosidad de la ruptura. No obstante, en la actitud informada en este contexto ha de sospecharse distorsión en las respuestas. Por ello, diseñamos un estudio de campo con el objetivo de conocer la prevalencia y magnitud de las distorsiones en las respuestas y establecer empíricamente criterios válidos de clasificación de sospecha de sesgo de respuesta. Método: Un total de 2,797 adultos, 50.9 % hombres, con hijos menores de edad, con edades comprendidas entre los 21 y los 68 años (M = 40.41), 2,488 vivían en pareja (sin rupturas previas), 204 se habían separado de mutuo acuerdo y 105 con separación contenciosa, respondieron a una medida de la actitud auto-informada y referenciada de la actitud hacia la resolución del conflicto en las relaciones de pareja. Resultados: Los resultados mostraron que los progenitores del grupo de separaciones contenciosas y de mutuo acuerdo sesgaban las respuestas. Asimismo, los resultados permitieron establecer empíricamente los criterios de clasificación de sesgos en las respuestas Epidemiológicamente, la probabilidad observada de sesgo en las respuestas fue del .629 [.537, .721] en los progenitores de separaciones contenciosas y del .377 [.310, .444] en los progenitores que resolvieron el conflicto de mutuo acuerdo. Conclusiones: Se discuten las implicaciones de los resultados para el diseño e implementación de programas de mediación e intervención. Palabras clave: ruptura de pareja contenciosa; separación de mutuo acuerdo; simulación, disimulación, epidemiología.

INTRODUCTION

The family constitutes the cornerstone of positive socialization (i.e., prosocial, sociocognitive competence, respect for social norms), but also negative socialization (e.g., antisocial, criminal, sociocognitive incompetence) with a life course trajectory (Nasaescu et al., 2020). Family risk factors associated with negative socialization, both static (e.g., parental criminal behavior) and dynamic (e.g., authoritarian parenting style –strictness and warmthless; Perez-Gramaje et al., 2020) have been widely documented, as well as protectors (e.g., good parental supervision; Jolliffe et al., 2016). Nevertheless, these factors were studied as if it were a family trait, without considering the effect of the context. Therefore, the family is subject to changes that bring about negative results in different domains for parents and children. Thus, Seijo et al. (2016), in a field study, quantified the average damages associated with parental separation in socio-economic (an increase in the poverty incidence rate about 34 %), psychological adjustment (ranging damages from 17 to 27 % –hostility), behavior disorders (an increase around 12 and 13 % of aggressive and antisocial
behaviors, respectively), social relations (a damage of 21 %), self-concept (a loss between 22 and 37 %), and academic achievement (an increase in school dropout rate around 15 %) domains. Nonetheless, the effects of parental separation are subject to wide variability, from positive and negative results for a minority, to no effect for the majority (Amato & Anthony, 2014). Likewise, negative outcomes from couple separation are extended to parents (Novo et al., 2019) with indirect effects in deficient parenting skills (Kreidl et al., 2017) and in maladaptive parenting (Wilson & Durbin, 2010). Similarly, the outcomes from couple separation may be positive, negative or without effects for couple members. The level of conflict, not the conflict itself, is the cause of this variability (Kelly & Emery, 2003). Thus, the lack of skills to cope with conflicts (Garrido-Macías et al., 2020), the limited conflict-resolution skills (Cacho et al., 2020; Del Hoyo-Bilbao et al., 2020), and the inadequate conflict-resolution (Moral-Jiménez & González-Sáez, 2020) explain the negative outcomes.

Judicially, the levels of conflict according to the judicial resolutions are: separation by mutual agreement (the parties agree on the terms of the separation that are reflected in a judicial sentence), contentious separation (the parties judicialize the process with crossed complaints, appeal and fail to comply judicial resolutions) and arbitrated separation (a judge or court arbitrates the decision that is fulfilled by the parties). In the first two, parties guide the process, employing a collaborative conflict-resolution skill in mutual agreement separation and a competing conflict-resolution skill in contentious separation; while in the third it is the judge or court. Conflict management based on cooperative techniques produces a more efficient, fair and balanced solution for persons in conflict; meanwhile, conflict-resolution sustained in competitive techniques leads to a poor and unbalanced resolution (Deutsch, 2006) that in family court disputes are not followed by those involved (Arce et al., 2005). Extrajudicially, separations by mutual agreement reach consensus through negotiation or mediation on the matters to arrange, while in contentious disputes it goes to or are referred to intervention programs to deal with or reduce the conflict (Fariña et al., 2022). Consequently, the attitude towards conflict resolution must be known as it predicts the conflict resolution technique that will be used and anticipates an intervention (Fariña et al., 2020). Notwithstanding, response distortions must be suspected in the parents’ responses to this measure: negative simulation (biases in attributing a negative attitude to the other parent), positive dissimulation or simulation (bias in attributing a positive attitude to oneself) or both at the same time (Arias et al., 2020; Fariña et al., 2014; Vilariño et al., 2009). Bearing in mind the literature, a field study with the aim of contrasting whether parents bias their own attitude (self-assessment) and that of the other parent (hetero-evaluation) and, where appropriate, quantify the magnitude of response distortions and empirically establish valid criteria for classifying suspected response bias was designed.
METHOD

Participants
A total of 2,797 Spanish adults participated in the study, 50.9 % men (n = 1,424) and 49.1 % women (n = 1,373) with minor children (M = 7.24, SD = 2.81), and aged between 21 and 68 years old (M = 40.41, SD = 5.82). Of these, 2,488 lived as a couple without previous breakups, 204 had separated by mutual agreement and 105 with contentious separation.

Measure instruments
Cuestionario Actitud ante el Conflicto Parental: Autoinformada y Referenciada (ACPar) [Validation of the Attitude to Parental Conflict Questionnaire: Self-reported and Referenced (ACPar)] (Fariña et al., 2020). The ACPar measures the attitude towards the resolution of the conflict in couple relationships in two dimensions: self-reported (the parent reports her own attitude towards the resolution of the conflict) and referenced (the parent of the other parent’s attitude towards conflict resolution). Subjects responded to items on an 11-point Likert-type scale from Nothing or none (0) to Maximum or total (10). Excellent internal consistency (α = .90 and .97, for self and referenced attitude, respectively) and reliability (composite reliability: .89 and .97, for self and referenced attitude, respectively) were observed in the construction of the questionnaire, and multitrait-multimethod validity (construct, convergent and discriminant validity). With the participants in this study, the measures showed excellent internal consistency (α = .92 and .97, for self and referenced attitude, respectively).

Variance measurement variable due to the measurement method and not to the measured construct, can be a source of systematic measurement error (Podsakoff et al., 2003). In the context of forensic evaluation, positive simulation (attribution of positive characteristics that are not present; Arias et al., 2020), negative (attribution or exaggeration of negative characteristics that are not present; Vilariño et al., 2009) or both (Fariña et al., 2014) should be suspected. To know the potential response biases introduced by the subject in the evaluation, it calculated the differential between the self-evaluation and the hetero-evaluation of the attitude for the resolution of the conflict. The values of the variable range between -40 (totally positive total attitude of the other member towards the resolution of the conflict and negative of the informant) and 40 (totally positive total attitude of the informant towards the resolution of the conflict and negative of the other member), equaling the 0 the attitude between the people in conflict (normative value).
**Data analysis**

Mean comparison analysis was designed. As for this, it run ANOVAs and, to control for the effects of variability due to the method, ANCOVAs. The analysis of variance is a robust test against the violation of the homogeneity of variance assumption, especially in comparisons with groups of equal or approximately equal sizes (large/small < 1.5), which is not the case for some comparisons in this field study (2488/204 = 12.2, and 2488/105 = 23.9). Although many researchers do not consider relevant, the lack of homogeneity of variance can cause important deviations in the significance of the results, such that, if the variability is greater in the large group, the $F$ test is conservative, and vice versa (Stevens, 1986). For this reason and to validate the correct acceptance or rejection of the null hypothesis, it was contrasted.

The theoretical value of $F$ (3.841/2.996) with the empirical one so that, if the theoretical $F$ is less than the empirical one, the alternative hypothesis is accepted, and vice versa (Mayorga et al., 2020). With this method it checked that the theoretical $F$s confirmed, in terms of acceptance or rejection, the results of the empirical $F$s. Post hoc tests were performed with the Howell and Dunnett C test with the variance homogeneity assumption not met, and with the Sidak-Park correction for multiple comparisons (1-(1-.05) $^\wedge$ (1/3) = .0169) observed homogeneity of variance. The effect size was calculated in $\eta^2_p$, for multiple comparisons, interpreted in terms of the explained variance, and with $d$ for the estimation of the magnitude of the difference between 2 means with the Hedges formula for unequal $N$s ($N1 \neq N2$) and with the Glass formula ($SD$ of the group without judicial conflict) when the assumption of homogeneity of variances was violated, and correcting the bias in the estimation of the effect size –Hedges correction– in $d$. The magnitude of the effect of $d$ was interpreted in terms of the Probability of Superiority of the Effect Size ($PS_{ES}$; Redondo et al., 2019); and quantifying the effect as a percentage increase (+) or decrease (-) in the measurement variable (Gancedo et al., 2021). In order to know the response biases introduced by the subject in the self- and hetero-evaluation measure, mean comparison analyzes were carried out with (ANCOVAs) and without control (ANOVAs) of the variability introduced by the differential between the self- and the hetero-evaluation. Subtracting the marginal means, the average difference between the two conditions was obtained and, obtained the combined variance, the upper limit of the interval for that mean at 84.1 % ($M + 1SD$). The estimation of the error in the classification of cases of the model based on the data (statistical model) was addressed with the Probability of an Inferiority Score (PIS; Fandiño et al., 2019) statistic, which is an estimate of the probability of individuals in the group with a significantly higher mean obtain a score in the measurement variable lower than that of the group with a higher mean (that is, an estimate of the error of the statistical model).
The classification criteria for suspected response bias were empirically defined by two response bias criteria (Vilariño et al., 2022): high probability of response bias ($M + SD \times 1.645$) and extreme probability of response bias ($M + SD \times 1.28$). The validity of these criteria was estimated by computing the $Z$ score for the contrast of the observed probability in the target populations (i.e., mutual agreement and contentious separation populations) with a constant (expected probability in the honest responding sample, sample without judicial conflict). The magnitude of the effect was interpreted as the times registered into the target population of over the expected in honest responding population ($OR$).

**RESULTS**

*Study of the effects of conflict on the composite of self- and hetero-evaluation*

The results showed that the judicial conflict factor in the couple relationship (without judicial conflict, conflict resolved by mutual agreement and contentious judicial conflict) mediates significant differences, $F(2, 2794) = 300.65, p < .001, 1 - \beta = 1$, in the differential between the self- and the hetero-evaluation of the attitude in the resolution of conflicts in the couple, accounting for 17.7% of the variance, $\eta^2_p = .177$. The a posteriori contrasts revealed that the differential between self- and hetero-evaluation of the attitude for the resolution of couple conflicts was significantly lower in the group of people without judicial conflict ($M = 1.38$) than in the group of couples in conflict resolved by mutual agreement ($M = 8.95$), with the effect size, $d = -1.17$, greater than 79.7% of all possible ones ($PS_{ES} = .797$) and an error rate (probability of a lower score in the group of people in conflict resolved by mutual agreement than the average of the group without judicial conflict) of 12.1% ($PIS = .121$); and that the group of couples in contentious judicial conflict ($M = 17.00$) with an effect size, $d = -2.41$, greater than 95.5% of all the possible ones ($PS_{ES} = .955$) and a margin of error in the classification of the 0.8% model ($PIS = .008$); and that the mutual agreement group than the contentious group, with an effect size, $d = -1.24$, greater than 81.1% of all possible ($PS_{ES} = .811$) and a margin of error in the classification of cases of 10.7% ($PIS = .107$). Since a positive result supposes that people attribute a more proactive attitude in resolving couple conflicts, a natural tendency is observed (in couples without judicial conflict, the standard evaluation is not subject to distortion due to interests judicial) quantified in 10.9% ($r = .109$) in the attribution to oneself of a more collaborative attitude in resolving couple conflicts than to the other member. On the other hand, this positive bias (greater self-evaluation than heteroevaluation) of the evaluation rises to 56.8% ($r = .568$) in the population of couples in judicial conflict resolved by mutual agreement, and to 79.6% ($r = .796$) among couples in contentious legal conflict.
Study of the effects of conflict in self-assessment controlled for response bias

The results of an ANCOVA, taking as covariate the differential between self- and hetero-evaluation (control of bias in the evaluation introduced by the subject), of the self-reported attitude on the resolution of the conflict, revealed an effect significant for the judicial conflict factor in the couple relationship, \( F(2, 2793) = 13.90, p < .001, 1 - \beta = .998 \), explaining 1 % of the variance, \( \eta^2_p = .010 \), as well as for the covariate, \( F(1, 2793) = 171.41, p < .001, 1 - \beta = 1 \), which explains 5.8 % of the variance, \( \eta^2_p = .058 \). The a posteriori contrasts showed that the individuals in the group of couples without judicial conflict \( (M = 35.41, IC 95 \% [35.10, 35.72]) \) share a significantly higher self-assessment than those in the groups in judicial conflict resolved by mutual agreement \( (M = 32.78, IC 95 \% [31.68, 33.88]) \) with an effect size, \( d = 0.34 \), greater than 59.5 % of all possible \( (P_{ES} = .595) \) and a margin of error in the classification of cases of 36.7 % \( (P_{IS} = .367) \); and in contentious judicial conflict \( (M = 32.61, IC 95 \% [31.02, 34.20]) \) with an effect size, \( d = 0.36 \), greater than 59.9 % of all the possible ones \( (P_{ES} = .599) \) and an error rate in the model classification of 35.9 % \( (P_{IS} = .359) \). The comparison (overlapping) between the reported mean and controlled for the variability introduced by the differential between self- and hetero-evaluation, indicates that the mean of the groups without conflict and resolved by mutual agreement remains the same, while the mean reported by individuals in contentious judicial conflict is (significantly) greater than the true value. On average, individuals immersed in a contentious judicial conflict increase their self-assessment by about 4 points \( (M = 3.75) \), covering 84.1 % of the population of individuals in contentious conflict \( (M + 1SD = 11.89) \) up to 12 points.

Study of the effects of conflict in self-assessment controlled for response bias

The results of an ANCOVA, taking as covariate the differential between self- and hetero-evaluation (control of bias in the evaluation introduced by the subject), of the referenced attitude on conflict resolution, revealed a significant effect for the judicial conflict factor in the couple relationship, \( F(2, 2793) = 13.89, p < .001, 1 - \beta = .998 \), as well as for the covariate, \( F(1, 2793) = 1428.74, p < .001, 1 - \beta = 1 \), which explains 33.8 % of the variance, \( \eta^2_p = .338 \). The posteriori contrasts showed that the individuals of

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* Without controlling for the effects of this covariate, the reported attitude about conflict resolution would be the same \( (Ms = 35.10[34.79, 35.41], 34.57[33.48, 35.66] y 36.36[34.83, 37.89]) \) for the group without conflict, resolved mutually agreed and contentious, respectively among the three groups, \( F(1, 2864) = 1.78, ns. \)

** Without controlling for the variability introduced by the differential between self- and hetero-evaluation, the referenced attitude on conflict resolution would be significantly different \( F(2, 2851) = 178.77, p < .001, 1 - \beta = 998, \eta^2_p = .111 \), with a significantly higher mean in the group without judicial conflict \( (M = 33.75[33.38, 34.12]) \) than in the groups with conflict resolved by mutual agreement \( (M = 25.50[24.21, 26.79]) \) and contentious conflict \( (M = 19.39[17.57, 21.20]) \), and in the mutual agreement group than in the contentious one.
the group of couples without judicial conflict ($M = 32.90$, IC 95 % $[32.59, 33.21]$) and reported a significantly more positive referenced evaluation of the other parent’s attitude towards the resolution of the conflict, with an effect size, $d = 0.33$, greater than 59.1 % of all possible ($P_{ES} = .591$) and a margin of error in the classification of the model of 37.1 % ($P_{IS} = .371$), than those of the groups in judicial conflict resolved by mutual agreement ($M = 30.27$, IC 95 % $[29.17, 31.36]$); and then those of the group in contentious judicial conflict ($M = 30.09$, IC 95 % $[28.50, 31.68]$) with an effect size, $d = 0.35$, greater than 59.9 % of all the possible ones ($P_{ES} = .599$) and a margin of error of the mathematical model in the classification of cases of 36.3 % ($P_{IS} = .363$). Additionally, the comparison between the referenced mean and controlled for the variability introduced by the differential between self- and hetero-evaluation, revealed that the reported mean of another parent in the group without judicial conflict is significantly lower than the true one; while in the groups in judicial conflict resolved by mutual agreement and contentious, the reported means are significantly lower than the true ones. On average, the individuals involved in a judicial conflict resolved by mutual agreement subtract an average of 5 points ($M = 4.77$), from the evaluation of the other parent’s attitude, reaching 84.1 % of the population of individuals in contentious conflict ($M + 1SD = 13.68$) up to 14 points; while among those in the contentious conflict group, the average decrease is about 11 points ($M = 10.70$), being up to 20 points ($M + 1SD = 19.65$) for 84.1 % of the population.

**Empirical definition of the classification criteria for suspected response bias**

Table 1 shows the results of the predictive validity (risk classification on the baseline) of these criteria. Succinctly, the very high probability of response manipulation is significantly higher in the population of parents in contentious separation (.629), as well as in the population of parents in mutually agreed separation (.377), being 6.29 and 3.77 (ORs = 6.29 and 3.77) times more likely (the magnitude of the effect) than expected the contingency of a very high probability of response manipulation in these populations. On the other hand, the extreme probability of manipulation of responses is significant in the population of parents in contentious separation (.543), as well as in the population of parents in separation by mutual agreement (.324), with the magnitude of the effect being 10.86 and 6.48 (ORs = 10.86 y 6.48) times more likely the high-risk contingency in these populations than expected. Comparatively, the increase in the classification of cases with the most liberal criterion (high probability of response bias) is not significant (confidence intervals for the observed probability overlap) neither in the population of contentious rupture, nor in the population of rupture of mutual agreement.
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### Table 1.

Response bias probability in mutual agreement and contentious populations.

<table>
<thead>
<tr>
<th>Couple break-up</th>
<th>( f(p)[95% CI_p] )</th>
<th>Z₁</th>
<th>OR</th>
<th>( f_{total}(p)[95% CI_p] )</th>
<th>Z₂</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contentious</td>
<td>66 (.629 [.537, .721])</td>
<td>18.07***</td>
<td>6.29</td>
<td>57 (.543 [.447, .638])</td>
<td>23.18***</td>
<td>10.86</td>
</tr>
<tr>
<td>Mutual agreement</td>
<td>77 (.377 [.310, .444])</td>
<td>13.19***</td>
<td>3.77</td>
<td>66 (.324 [.260, .388])</td>
<td>17.95***</td>
<td>6.48</td>
</tr>
</tbody>
</table>

*Note. Classification criterion as very high probability of response bias \((M + SD * 1.28 \geq 10)\) and extreme probability of response bias \((M + SD * 1.645 \geq 12)\); \(f_{total}(p)\): total frequency of very high or extreme probability of bias response (probability); Z₁: zeta score for the comparison of the registered proportion of high probability of bias response cases with a constant (.10, expected probability in the normative sample); Z₂: zeta score for the comparison of the registered proportion of extremely high probability of bias response cases with a constant (.05, expected probability in the normative sample); *** \(p < .001\).*

### CONCLUSIONS

From the results, the following conclusions are drawn for the interpretation of the results of the self- and hetero-evaluation of the attitude towards the resolution of the conflict in couple relationships that the parents report in the processes of forensic evaluation, mediation and intervention in couple breakup. First, the parents in judicial litigation for the breakup of their couple biased the answers (a strange variable that contaminates the results) on the attitude towards the resolution of the conflict. Therefore, the measurements are not valid and must be corrected. Second, said bias consists in self-attributing a positive attitude and, on the contrary, in disapproving in the other parent a negative attitude for the resolution of the conflict. Third, as a general rule, the bias consists of the combination of a positive self-evaluation bias and a negative hetero-evaluation bias. Fourth, parents in contentious conflict skew responses significantly more than those in the mutually agreed separation group. Fifth, the differential between self-assessment and hetero-evaluation of conflict resolution attitude correctly classifies response bias.

From these results it follows that in the forensic evaluation of the attitude towards the resolution of the conflict, negative simulation must be suspected in the evaluation of the other parent and positive (dissimulation) in the self-reported one, as well as the combination of both. Likewise, mediation and intervention programs with this population and, especially, with cases of very high and extreme probability of response bias, must include in their contents the modification of the attribution to the other parent of a negative attitude towards the resolution of the conflict, as well as promote a really positive attitude in themselves. A positive attitude not only facilitates conflict resolution, but the control of a negative perception in the other parent neutralizes an inhibitor of conflict resolution.
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**Conflict of interest:**

The authors declare no conflict of interest.

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