

# Cognitive emotion regulation and positive dyadic outcomes in married couples

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## Abstract

The aim of the present research was to investigate the association between spouses' individual cognitive emotion regulation (CER) strategies, dyadic coping behaviors, and relationship satisfaction. Using a sample of 295 couples (590 individuals), we found that adaptive CER strategies (putting into perspective, positive refocusing, positive reappraisal, and planning refocusing) were related to positive dyadic coping (supportive, common, and delegated coping in couples), which in turn increased both partners' relationship satisfaction. Analyses using actor–partner interdependence modeling indicated that dyadic coping mediated the association between spouses' CER and their own relationship satisfaction. These findings support the importance of addressing both cognitive coping strategies and dyadic coping in prevention and intervention in couples.

## Keywords

Cognitive emotion regulation, couple relationships, dyadic coping, relationship satisfaction

Emotion regulation has been positively related not only with intrapersonal outcomes, such as higher levels of well-being, less depression, and anxiety (Cicchetti, Ackerman, & Izard, 1995; Garnefski, Kraaij, & Spinhoven, 2001; Martin & Dahlen, 2005) but also

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with interpersonal outcomes, such as relationship quality with couples (John & Gross, 2004; Lopes, Salovey, Côté, & Beers, 2005). However, the research on emotion regulation with couples is limited and does not examine the process by which emotion regulation affects the relationship outcome (such as marital satisfaction and relationship quality). Furthermore, past research has examined only certain emotion regulation strategies—reappraisal and suppression—while ignoring how other different emotion regulation strategies, namely, cognitive emotional regulation strategies, affect intimate couples.

To date, research has shown that partners' emotion regulation abilities have behavioral, emotional, cognitive, and physiological consequences in the context of relationship interactions. For example, results suggest that partners' difficulties in emotion regulation have been associated with hostile criticism (Klein, Renshaw, & Curby, 2016), an increased risk of intimate partner violence (McNulty & Hellmuth, 2008), low levels of relationship satisfaction (Bloch, Haase, & Levenson, 2014), low levels of partners' conversation memories after a conflict (Richards, Butler, & Gross, 2003), and high levels of cardiovascular arousal for both partners during conflict interactions (Ben-Naim, Hirschberger, Ein-Dor, & Mikulincer, 2013). Only a few studies have directly investigated the processes underlying the links between emotion regulation and marital quality outcomes (Bloch et al., 2014; Zeidner, Kloda, & Matthews, 2013). Moreover, prior research limits our understanding of relationships between cognitive emotion regulation (CER) and supportive behaviors in couple. Specifically, most previous work has investigated the relationships of suppression and reappraisal with global relationship satisfaction, and less attention has been paid to the association between specific emotion regulation strategies and positive behaviors of the couple. The present study addresses these gaps in the existing research by examining whether husbands and wives' CER strategies are associated with relationship satisfaction through the mediating role of dyadic coping behaviors, that is, coping behaviors shared between partners in the stress regulation process within a couple (Bodenmann, 2005). This article reviews the literature on emotional regulation within the context of an intimate relationship, presents the findings on the relationship between CER strategies and relationship satisfaction, and how positive dyadic coping mediates this relationship.

### *Emotion regulation in couple relationships*

Emotion regulation has been defined as “the process by which individuals influence which emotions they have, when they have them and how they experience and express these emotions” (Gross, 1998, p. 275). There are different ways to conceptualize and classify emotion regulation. A common conceptualization distinguishes between CER strategies (e.g., rumination, positive refocusing, and putting into perspective) and behavioral emotion regulation strategies (e.g., substance use) (Aldao & Dixon-Gordon, 2014; Garnefski et al., 2001; Naragon-Gainey, McMahon, & Chacko, 2017). Emotion regulation strategies can be either adaptive (e.g., positive reframing and reappraisal) or maladaptive (emotion suppression or rumination) (Aldao & Nolen-Hoeksema, 2012). Since there is limited research on CER strategies within the context of couple relationships, we decided to focus on these types of cognitive strategies. In particular, we examined only the adaptive strategies.

In a high conflict situation, partners who use emotion regulation strategies to de-escalate or downregulate negative emotions tend to have higher relationship satisfaction and less negative and more positive emotional expressions than non-regulated couples (Gottman & Levenson, 1992). Experiencing more positive emotions than negative emotions in close relationships has also been linked to commitment and stability (Aron, Norman, Aron, McKenna, & Heyman, 2000; Gable, Gonzaga, & Strachman, 2006). In contrast, partners who cannot regulate negative emotions and continue to focus on their anger and upset following a stressful experience have poorer relationship quality (Herzberg, 2013). These findings support the idea that emotion regulation is associated with more positivity and less negativity in couple relationships. The most common intrapersonal emotion regulation strategies investigated in couple research have been cognitive reappraisal, expressive suppression, rumination, and perspective taking. In general, reappraisal was related to positive relationship outcomes, such as marital quality (Finkel, Slotter, Luchies, Walton, & Gross, 2013), while suppression was associated with negative interpersonal behavior (Vater & Schröder-Abé, 2015). Moreover, women tend to be more negatively affected by their partners' use of emotional suppression, while similarity in suppression between partners was positively related to wives' marital quality (Velotti et al., 2016). Similarly, partner effects of reappraisal have been reported, with female reappraisal being negatively associated with male pre-occupation (negative thoughts about the stressor) above and beyond their own intrapersonal strategies (Horn & Maercker, 2016).

In addition, studies also revealed that reappraisal and suppression have different cognitive consequences, reappraisal being positively associated with the engagement in a conflict conversation and conversation memory and suppression being negatively associated with conversation memory (Richards et al., 2003). Another adaptive emotion regulation strategy, *perspective taking*, which is the ability to consider and understand partner's feelings and thoughts (Blair, 2005), was positively associated with interpersonal behavior (including support validation) and perceived emotional closeness between romantic partners (Myers & Hodges, 2012; Vater & Schröder-Abé, 2015). The maladaptive strategy of ruminative brooding was found to predict failure to adapt with the stressful events for both male and female partners (Horn & Maercker, 2016). Research on the physiological consequences of emotion regulation during relationship interactions revealed that the use of suppression determined a greater cardiovascular arousal for both partners during conflict interactions, while the use of reappraisal (positive mindset) determined a decrease in the cardiovascular arousal of both partners (Ben-Naim et al., 2013).

Another line of research has shown that emotional intelligence, which includes regulation of emotions, plays an important role in communication between romantic partners and marital quality. Emotional intelligence was positively related to constructive communication patterns in couples and negatively related to demand/withdraw communication patterns (Smith, Heaven, & Ciarrochi, 2008; Zeidner & Kloda, 2013). Additionally, emotional intelligence was positively associated with dyadic coping and relationship satisfaction in romantic partners (Zeidner et al., 2013).

*Cognitions in regulating emotions.* Emotions can be regulated through cognitions (e.g., positive reappraisal and putting into perspective), and this process is defined as CER (Garnefski et al., 2001). In order to assess cognitions associated with emotion regulation in stressful situations, Garnefski, Kraaij, and Spinhoven (2001) developed the Cognitive Emotion Regulation Questionnaire (CERQ), measuring what people think in stressful situations. However, to the best of our knowledge, this questionnaire was not used in the context of couple research. The authors proposed nine CER strategies, some of them have been characterized as adaptive strategies (acceptance, planning refocusing, positive refocusing, positive reappraisal, and putting into perspective), and the others have been described as maladaptive strategies (self-blame, other-blame, rumination, and catastrophizing). In general, self-blame, rumination, and catastrophizing were related to depression, anxiety, distress, and anger (Garnefski et al., 2001; Garnefski, Teerds, Kraaij, Legerstee, & van den Kommer, 2004; Martin & Dahlen, 2005). In contrast, the associations found between the other adaptive strategies and symptoms of psychopathology were low (Aldao & Nolen-Hoeksema, 2010). Despite the fact that acceptance was considered an adaptive strategy when CERQ was developed (Garnefski et al., 2001), other existing studies showed that acceptance was related to depression and distress (Martin & Dahlen, 2005) and suggested that acceptance may indicate hopelessness. Therefore, in the current study, we focus on the following adaptive CER strategies: planning refocusing, positive refocusing, positive reappraisal, and putting into perspective. *Planning refocusing* refers to thoughts about next steps to take for managing the stressful situation. *Positive refocusing* reflects thoughts about other positive and joyful experiences. *Positive reappraisal* refers to attributing a positive meaning to the stressful event. *Putting into perspective* refers to thoughts involving decreasing the value of the stressful experience when compared to other negative situations. The current study focuses on the extent to which the use of adaptive cognitions in regulating emotions is related to positive dyadic coping behaviors, which will ultimately increase relationship satisfaction in married couples.

*Emotion regulation and dyadic coping.* According to the systemic transactional model (STM; Bodenmann, 2005), the stress regulation process of the couple (positive and negative strategies used by both partners to cope with stress together) is defined as dyadic coping. Positive strategies of dyadic coping include *supportive dyadic coping* (SDC; one's partner efforts to support the other partner), *common dyadic coping* (CDC; participation of both partners in the coping process through sharing of feelings, finding solutions to problems, or relaxing together), and *delegated dyadic coping* (DDC; reducing the partner's stress by taking over his/her responsibilities). Both SDC and CDC can be problem-focused (focusing on helping the partner to find solutions in the case of SDC or finding solutions together in the case of CDC) or emotion-focused (offering emotional support to the partner, being empathic and understanding in the case of SDC, or sharing feelings in the case of CDC).

The few studies investigating the association between different aspects of emotion regulation and coping in couples indicated a positive link between the two constructs. In a study of depressed persons, Bodenmann, Charvoz, Widmer, and Bradbury (2004) found significant negative associations of partners' negative emotional expression with

their own SDC and CDC. Similarly, Papp and Witt (2010) showed that both male and female partners' ability to control negative emotions was positively related to their own positive dyadic coping and negatively related to their own negative dyadic coping. A recent study found that difficulties in emotion regulation were related to poor dyadic coping strategies in a sample of young adults (Levesque, Lafontaine, & Bureau, 2017). Moreover, Schoebi and Randall (2015) suggest that emotional states and individual emotion dynamics may be related to relationship outcomes, such as support provision in the context of couple interactions. For a further investigation of the link between spouses' emotion regulation and supportive behaviors in couple, the current study investigates the association of CER with positive dyadic coping and relationship satisfaction using a dyadic approach.

*The cultural context of Romanian couples.* The majority of studies on emotion regulation and couple outcomes are based on samples from the U.S. and Western Europe, limiting the generalization of the findings to other regions and cultures. Using a sample of Romanian couples in our study presents an opportunity to study a population that is underrepresented in the area of couple and family psychology.

When studying the intimate relationships and interactions of Romanian couples, contextual factors such as socioeconomic status, gender roles, chronic daily stress, religiosity, and cultural values must be considered. Economic stress in Romania is a contextual factor that seems to have a particularly important influence on how spouses cope together with daily stress (Rusu, 2016). Furthermore, although Romanian couples tend to report egalitarian attitudes on gender roles, traditional gender roles still exist. Women spend a significantly higher number of hours per week performing household tasks than men and reporting higher levels of long-term stress and lower life satisfaction than men (Mărginean et al., 2010). There are also significant differences between men and women on dyadic coping with husbands reporting that they received higher levels of support from their wives than wives reported receiving from their husbands (Rusu, 2016). These cultural aspects may affect the association between individual variables, such as emotion regulation strategies and relationship variables in the couple context.

## *Hypotheses*

The current study had three main goals. First, based on previous findings (Papp & Witt, 2010; Zeidner & Kloda, 2013; Zeidner et al., 2013), we predicted within-partner effects in the association of emotion regulation with dyadic coping and relationship satisfaction. Specifically, we hypothesized that each partner's CER strategies will be positively associated with one's own positive dyadic coping (H1.1) and with one's own relationship satisfaction (H1.2). Second, we hypothesize that each partner's positive dyadic coping will be positively associated with one's own relationship satisfaction (H2.1) and with one's partner's relationship satisfaction (H2.2). Following from existing studies showing both within- and between-effects in the association of dyadic coping and relationship satisfaction (see for review Falconier, Jackson, Hilpert, & Bodenmann, 2015), significant actor and partner effects were specified in the second hypothesis. Moreover, considering the positive association between emotion regulation and marital quality (Bloch

et al., 2014; Velotti et al., 2016) as well as the positive association between emotion regulation and positive behaviors in couple (Horn & Maercker, 2016; Myers & Hodges, 2012; Smith et al., 2008; Zeidner et al., 2013), we hypothesize that positive dyadic coping is a mediator between CER and relationship satisfaction. As our main hypothesis, we assumed that each partner's positive dyadic coping will mediate the association between each partner's CER strategies and his/her own relationship satisfaction (H3.1) and between each partner's CER strategies and his/her partner relationship satisfaction (H3.2). The third hypothesis is also derived from the STM (Bodenmann, 2005), assuming that individual stress reactions and resources of one partner affect not only his/her own relationship satisfaction but also his/her partner relationship satisfaction through positive dyadic coping behaviors. In other words, we assumed that CER will influence supportive behaviors in couples, which in turn will affect marital satisfaction. To the best of our knowledge, no published study has analyzed CER strategies in association with positive marital outcomes using dyadic data analyses.

## Method

### Sample

Participants and procedure are the same as described in Rusu, Hilpert, Falconier, and Bodenmann (2017). All relevant information related to the sample and procedure is repeated here. The data from the present study were collected from a community sample of 295 Romanian married couples, approximately half from an urban area (50.2%) and half from a rural area (49.8%). Men's mean age was 39.30 ( $SD = 9.35$ ; range: 21–66) and women's mean age was 36.14 years ( $SD = 9.37$ ; range: 20–64). On average, the marriage duration was 13.05 years ( $SD = 9.30$ ; range: 25–40 years), and partners had been in the relationship on average for 15 years ( $SD = 8.64$ ). Couples had on average 1.43 children ( $SD = 1.14$ ; range: 0–8 children). Regarding their educational level, 5.46% of women and 6.96% of men had finished middle school; 29.35% of women and 41.11% of men had a high school diploma; 11.85% of women and 12.63% of men had completed some post-high school education; 43.69% of women and 30.66% of men had a bachelor's degree; and 8.87% of women and 9.40% of men had postgraduate education. According to occupational status, 79.3% of the men and 79% of the women were employed; 14.2% of the men and 14.6% of the women were unemployed; 0.3% of the men and 2.7% of the women were still students; and 2.7% of the men and 2.4% of the women were retired. The socioeconomic status of the sample, defined by family income, was representative of Romania; 2% had a very low family income, 43.4% had a low family income, 44% had a moderate family income, and 8.6% had a high family income. The majority of participants were Christian Orthodox (89.25%), and the rest were Pentecostal (4.69%), Evangelist (2.73%), Catholic (1.87%), Adventist (0.85%), and Baptist (0.34%).

### Procedure

Participating couples in the study were recruited by students attending an educational science program from a public Romanian university. Students were instructed about the

study's purpose and were asked to distribute the questionnaires to married couples (every student received questionnaires for two couples). For data collection, students received academic course credits. To ensure the independence and privacy of the reports, students were instructed to deliver the envelopes separately to each spouse. Students received questionnaires for 390 couples, and 331 of them were returned. We excluded the questionnaires filled out by only one partner (21 couples) and the questionnaires with identical answers for both spouses on all measures (15 couples). Overall, 295 couples ( $N = 590$  individuals) with complete data were included in the study. Couples agreed to participate in the study on a voluntary basis. In the final sample, we had couples from eight different counties in Romania. The Institutional Review Board of the Romanian University approved the study. All participants signed a consent form to participate in the study. Participants were asked to complete the questionnaires without consulting the partner and to return them in enclosed envelopes. Couples were not reimbursed for their participation.

## Measures

The questionnaire contained measurements of the following variables.

**Emotion regulation.** CERQ (Garnefski, Kraaij, & Spinhoven, 2002) is a 36-item questionnaire, consisting of nine subscales, each referring to what someone thinks after experiencing threatening or stressful events. Items were rated on a 5-point Likert scale, from 1 (*almost never*) to 5 (*almost always*). CERQ evaluates the regulation of emotions through cognitions in stressful situations (individual thoughts related to a stressful family event). Participants were asked specifically to report their cognitions when confronting with family stress. For the present study, we were interested in four subscales of CERQ: planning refocusing (e.g., *I think about a plan of what I can do best*), positive refocusing (e.g., *I think of something nice instead of what has happened*), positive reappraisal (e.g., *I think that the situation also has its positive sides*), and putting into perspective (e.g., *I think that it hasn't been too bad compared to other things*). Previous research supported factorial structure of CERQ, as well as convergent and criterion validity of the questionnaire across cultures (Ireland, Clough, & Day, 2017). The subscales showed good internal consistency in previous studies, ranging from .68 to .86 (Balzarotti, Biassoni, Villani, Prunas, & Velotti, 2016). In the present study, Cronbach's  $\alpha$  values were for planning refocusing .73 for men and .74 for women, for positive refocusing .79 for men and .81 for women, for positive reappraisal .75 for men and .71 for women, and for putting into perspective .74 for men and .77 for women.

**Positive dyadic coping.** The Romanian version of the dyadic coping inventory (DCI; Bodenmann, 2008; Rusu, Hilpert, Turliuc, & Bodenmann, 2016) was used to measure perceived partners' positive dyadic coping behaviors: SDC (4 items), CDC (5 items), and DDC (2 items). Participants were asked to rate on a 5-point Likert scale (from 1 = *very rarely* to 5 = *very often*) how often they provide to their partner emotion-focused SDC (e.g., *I show empathy and understanding to my partner*), problem-focused SDC (e.g.,

*I try to analyze the situation together with my partner in an objective manner and help him/her to understand and change the problem*), emotion-focused CDC (e.g., *We help each other relax with such things like massage, taking a bath together, or listening to music together*), problem-focused CDC (e.g., *We try to cope with the problem together and search for ascertained solutions*), and DDC (e.g., *When my partner feels he/she has too much to do, I help him/her out*). Previous studies confirmed the factorial structure, validity, and measurement invariance of DCI across gender and across cultures (Nussbeck & Jackson, 2016). Moreover, studies reported good reliability scores for the subscales measuring positive dyadic coping (SDC, CDC, and DDC) with Cronbach's  $\alpha$  ranging from .68 to .89 (Nussbeck & Jackson, 2016). In the current study, Cronbach's  $\alpha$  for the DCI subscales were for SDC .74 for men and .72 for women, for CDC .90 for both men and women, and for DDC .70 for men and .59 for women.

**Relationship satisfaction.** Couples Satisfaction Index (CSI4; Funk & Rogge, 2007) is a 4-item questionnaire designed to measure how satisfied an individual is within his/her current relationship (Funk & Rogge, 2007). Items were rated on a 6- and 7-point Likert scale (e.g., *In general, how satisfied are you with your relationship?*). Studies reported good internal consistency for CSI4, with Cronbach's  $\alpha$  coefficient of .94 (Funk & Rogge, 2007). The scale demonstrated very good internal consistency in the present study as well, with Cronbach's  $\alpha$  of .90 for men and .92 for women.

Sociodemographics were measured by items about age, gender, relationship duration, marriage duration, number of children, and education. This study was part of a larger project, investigating contextual, individual, and dyadic factors associated with family stress in Romanian couples. In this project, in addition to the reported measures, we have also used other scales for measuring family stress, dispositional positive emotions, ego resilience, communication in couple, religiosity, and well-being.

### **Analytic strategy**

We used the actor-partner mediation model (APMeM; Bodenmann, Ledermann, & Bradbury, 2007) in our analyses. This approach allowed us to include mediation variables in the model, to control for the interdependence of dyadic data, and to achieve separate estimates for actor and partner effects. In order to estimate the model, the common fit indices were used:  $\chi^2$ , Comparative Fit Index (CFI), standardized root mean square residual (SRMR), and the root mean square residual of approximation (RMSEA; Schermelleh-Engel, Moosbrugger, & Müller, 2003). According to Schermelleh-Engel, Moosbrugger, and Müller (2003), a good model fit is determined when  $\chi^2/df < 3$ ,  $CFI \leq .95$ ,  $SRMR \leq .05$ , and  $RMSEA \leq .05$ . SPSS 22 was used to compute descriptive statistics and to account for the nonnormal distribution of the subscales. In addition, we used the bootstrap method for correlations and paired samples *t*-test. We used MPLus 7.11 to compute the APMeM. In order to compute standard errors and model parameters of the APMeM, we used the bootstrap option and full information maximum likelihood estimator in MPLus.

**Table 1.** Descriptive statistics and paired sample *t*-test for path model variables.

Variable	Mean	SD	Mean difference	SD (mean difference)	<i>t</i>	<i>df</i>
Positive refocusing						
Women	2.86	.87	-.02	1.06	-.42	294
Men	2.88	.86				
Planning refocusing						
Women	3.67	.70	.01	.87	.31	294
Men	3.65	.72				
Positive reappraisal						
Women	3.53	.77	.02	.91	.51	294
Men	3.50	.78				
Putting into perspective						
Women	3.33	.86	.00	.92	.03	294
Men	3.33	.83				
Supportive DC						
Women	3.84	.61	-.05	.62	-1.61	293
Men	3.78	.63				
Common DC						
Women	3.87	.83	-.01	.66	-.36	293
Men	3.88	.79				
Delegated DC						
Women	3.59	.78	-.02	.93	-.49	293
Men	3.62	.79				
Relationship satisfaction						
Women	4.04	.88	-.14**	.69	-3.68	294
Men	4.19	.80				

Note. *n* = 295 women and 295 men. *SD* = standard deviation; SDC = supportive dyadic coping; CDC = common dyadic coping; DDC = delegated dyadic coping.

\*\**p* < .01 (two-tailed).

## Results

### Preliminary analyses

Table 1 presents means, standard deviations, and *t*-tests for paired samples for the research variables, for each of the partners. In general, the scores for the study variables were moderate for CER strategies (positive refocusing, planning refocusing, positive reappraisal, and putting into perspective). Partners also reported moderate levels of dyadic coping behaviors and high scores for relationship satisfaction. Husbands reported significantly higher scores on relationship satisfaction than wives,  $t(294) = -.14$ ,  $p < .01$ .

As shown in Table 2, all adaptive CER strategies were significantly positively correlated with dyadic coping behaviors and all positive dyadic coping strategies were significantly positively correlated with relationship satisfaction for both husbands and wives. Results also indicated that planning refocusing and positive reappraisal among men were significantly positively correlated with their own relationship satisfaction. For women, their adaptive CER strategies were not correlated with their relationship

**Table 2.** Correlations among path model variables.

	1	2	3	4	5	6	7	8	9	10
1. Age	.94	.88**	-.03	.08	-.06	.05	-.15**	-.20**	-.01	-.18**
2. Relationship duration	.87**	1	-.00	.11	-.04	.06	-.12*	-.18**	.02	-.15**
3. Positive refocusing	.03	.04	.25**	.32**	.53**	.43**	.15**	.13*	.12*	.06
4. Planning refocusing	.06	.06	.35**	.26**	.64**	.34**	.19**	.19**	.19**	.08
5. Positive reappraisal	-.00	-.04	.52**	.70**	.31**	.61**	.26**	.20**	.20**	.11
6. Putting into perspective	.08	.06	.51**	.51**	.69**	.41**	.22**	.12*	.12*	.10
7. SDCO	-.05	-.03	.26**	.32**	.37**	.23**	.49**	.73**	.52**	.63**
8. CDC	-.20**	-.16**	.19**	.25**	.30**	.14*	.74**	.66**	.45**	.69**
9. DDCO	-.02	.02	.21**	.24**	.27**	.24**	.66**	.61**	.36**	.32**
10. Relationship satisfaction	-.13*	-.09	.09	.22**	.18**	.07	.55**	.69**	.37**	.67**

Note. SDC = supportive dyadic coping; O = by oneself; CDC = common dyadic coping; DDC = delegated dyadic coping. Intercorrelations for women are shown above the diagonal and for men below the diagonal. Intercorrelations between spouses are presented in italics.

\*\*Correlation is significant at the .01 level (two-tailed).

\*Correlation is significant at the .05 level (two-tailed).

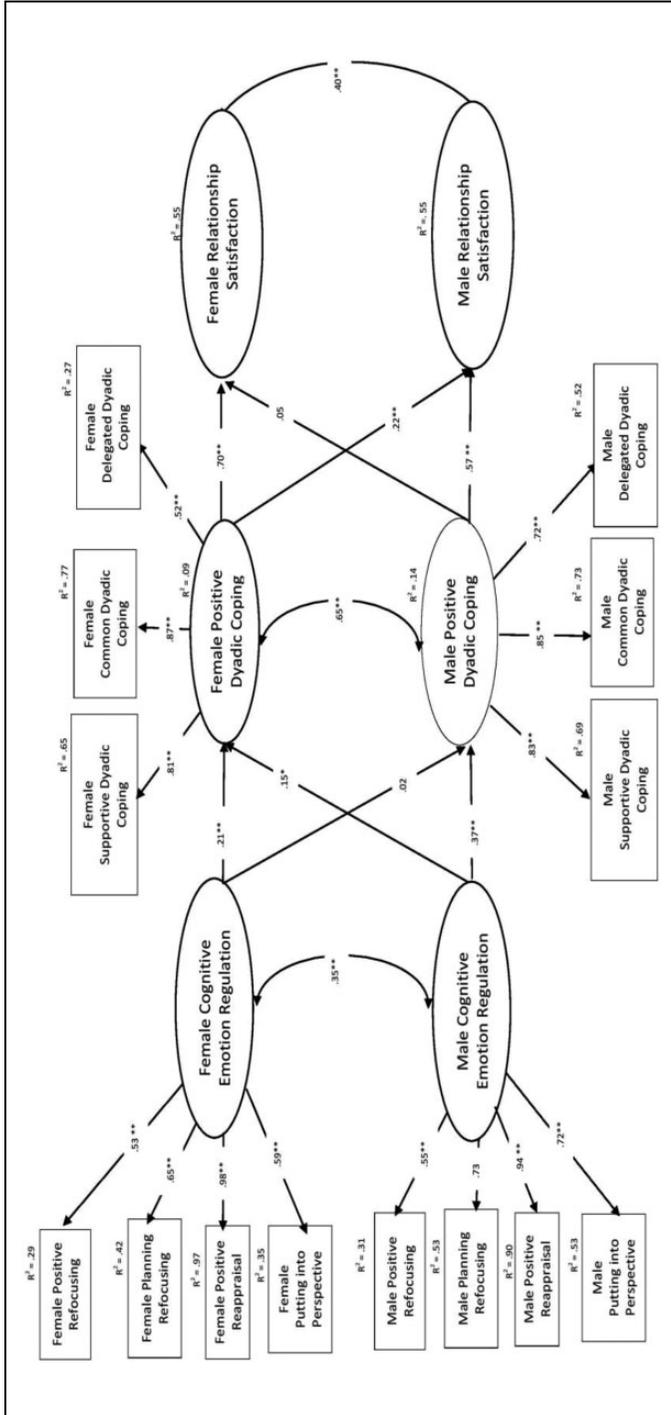
satisfaction. Table 2 also reveals the between-partner correlations; we found significant positive correlations between the two partners' levels of CER strategies; the two partners' levels of SDC, CDC, and DDC; and the two partners' levels of relationship satisfaction. The correlations of the study variables with age and relationship duration were low in general.

The APIMeM is illustrated in Figure 1. The model showed a satisfactory fit:  $\chi^2(187) = 322.24, p = .00, CFI = .97, RMSEA = .05 (.04-.05), SRMR = .05$ . Considering that  $\chi^2$  is sensitive to sample size, we applied the rule that  $\chi^2/df$  should be smaller than 3 (Schermelell-Engel et al., 2003).

### Direct effects

*CER and positive dyadic coping.* In line with H1.1, results indicated that male and female adaptive CER had a significant direct effect on their own positive dyadic coping ( $\beta_{Wives} = .21, \beta_{Husbands} = .37$ ). In addition to actor effects, the partner effect in the association between husbands' CER and wives' dyadic coping was also significant ( $\beta_{Husbands} = .15$ ). However, wives' CER was not significantly associated with their husbands' positive dyadic coping ( $\beta_{Wives} = .02$ ).

*CER and relationship satisfaction.* The direct paths from CER strategies to relationship satisfaction were statistically insignificant in the structural model. Therefore, the more



**Figure 1.** APMeM testing positive dyadic coping as a mediating variable in the relationship between adaptive CER and marital satisfaction. The correlations between male and female CER strategies (positive refocusing, planning refocusing, positive reappraisal, and putting into perspective) and between male and female positive dyadic coping (SDC by oneself and CDC by oneself) were computed in the model but were not depicted for clarity. APMeM: actor-partner mediation model; CER: cognitive emotion regulation; SDC: supportive dyadic coping; CDC: common dyadic coping; DDC: delegated dyadic coping.

parsimonious model without direct paths from CER strategies to relationship satisfaction was preferred over the less parsimonious model. H1.2 was not supported.

*Positive dyadic coping and relationship satisfaction.* The direct paths from positive dyadic coping to relationship satisfaction were statistically significant. The findings showed that significant actor effects, namely, female and male positive dyadic coping, were significantly positively related to their own relationship satisfaction ( $\beta_{\text{Wives}} = .70$ ,  $\beta_{\text{Husbands}} = .57$ ), as a support for H2.1. In addition, we found a significant partner effect with wives' positive dyadic coping having a significant positive effect on husbands' relationship satisfaction ( $\beta_{\text{Wives}} = .22$ ), as a partial support for H2.2.

In order to analyze gender differences in actor effects, we have constrained women and men's actor effects to be equal and we have performed the  $\chi^2$  difference test ( $\Delta\chi^2$ ) between the constrained and unconstrained initial model. Specifically, we constrained the effect of CER on positive dyadic to be equal across gender. The results indicated that these equality constraints across men and women did not significantly worsen the model fit ( $\Delta\chi^2 = 2.21$ ,  $df = 1$ ,  $p = .13$ ). Similarly, imposing equality constraints across gender for the effect of dyadic coping on relationship satisfaction did not significantly reduce the model fit of the second model ( $\Delta\chi^2 = 2.68$ ,  $df = 1$ ,  $p = .10$ ).

### *Indirect effects*

For our main hypothesis (H3), we assumed that positive dyadic coping explained the influence of CER strategies on relationship satisfaction. The findings showed that positive dyadic coping mediated the actor effects of CER on relationship satisfaction. Both female and male CER had a significant indirect effect on their own relationship satisfaction through their own positive dyadic coping ( $\beta_{\text{Wives}} = .15$ ,  $\beta_{\text{Husbands}} = .21$ ); H3.1 was supported. In addition to indirect actor–actor effects, we found an indirect actor–partner effect; male CER strategies had an indirect effect on female relationship satisfaction through female positive dyadic coping ( $\beta_{\text{Wives}} = .10$ ), as a partial support of H3.2. Adaptive individual cognitive coping strategies and positive dyadic coping explained a significant part of the variation in relationship satisfaction ( $R^2$  for both women and men = .55).

## **Discussion**

Although the importance of emotion regulation for couple relationships has been supported in previous studies (Bloch et al., 2014; Gottman & Levenson, 1992; Richards et al., 2003), there is a lack of research considering different aspects of emotion regulation (such as regulating emotions through cognitions) and a lack of studies on the association between emotion regulation and relationship satisfaction. Moreover, little is known about the explanatory mechanisms in this association. The current study tested the mediating role of positive dyadic coping in the association between CER and relationship satisfaction, using dyadic analysis. The findings showed that CER strategies (putting into perspective, positive refocusing, positive reappraisal, and planning refocusing) were positively associated with positive dyadic coping (SDC, CDC, and DDC), which in turn positively affected relationship satisfaction.

The finding that CER was positively associated with positive dyadic coping is consistent with previous research that has shown a positive association between individual and dyadic coping strategies (Bodenmann, Charvoz, Widmer, & Bradbury, 2004; Papp & Witt, 2010). Thus, using adaptive cognitive strategies for emotion regulation at individual level may increase positive coping at the dyadic level, which in turn will increase husbands' and wives' relationship satisfaction. Additionally, our results converge with prior studies, showing that emotion regulation abilities are associated with positive relationship outcomes (Bloch et al., 2014; Zeidner et al., 2013). Despite confirming these positive associations between individual coping and marital outcomes, the present study furthers our understanding of how dyadic coping strategies mediate the effect of one's own emotion regulation on their own relationship satisfaction and their partner's relationship satisfaction. Results revealed that male and female positive dyadic coping mediated the association between their own adaptive CER strategies and their own relationship satisfaction (actor-actor mediation). In other words, wives and husbands who could downregulate their negative emotions through cognitions were better able to use positive dyadic coping (supportive, common, and delegated coping) and in consequence will be more satisfied with their marriage.

### *Gender differences*

The present study revealed differences between husbands and wives in their level of perceived relationship satisfaction. Husbands reported to be more satisfied with the marriage than their wives. This result is consistent with prior research conducted on U.S. samples, showing that husbands were more likely than their wives to evaluate more positively different areas of their marriages (Fowers, 1991). Additionally, the finding that husbands are more satisfied with their marriages than wives may result from the higher levels of stress experienced by Romanian women compared to men and the lower level of support that women receive from their partners in time of stress compared to men (Rusu, 2016). Additionally, a national survey indicated gender differences in life satisfaction in Romania, women being less satisfied with their lives compared to men (Mărginean et al., 2010).

The present study found evidence for the significant effect of husbands' but not wives' emotion regulation on their partners' positive dyadic coping. The small association between husbands' CER and wives' positive dyadic coping might be interpreted in light of previous research, indicating that partners' use of maladaptive emotion regulation strategies (such as suppression) negatively influenced the marital quality of wives but not of husbands (Velotti et al., 2016).

This study also demonstrated gender differences in the association between positive dyadic coping and relationship satisfaction. Although the actor effects in this association were significant for both husbands and wives, partner effects were significant only for husbands. Specifically, we found that wives' positive dyadic coping had a significant positive effect on husbands' relationship satisfaction, while husbands' positive dyadic coping was not related to their wives' relationship satisfaction. This result converges with prior research showing that particularly wives' positivity and husbands' negativity are related to both spouses marital quality. For example, studies indicated that wives

tended to be more responsible for providing support and restoring the emotional balance in marriage (Gottman & Notarius, 2000); wives' depression compared to husbands' depression was related to lower levels of positivity and higher levels of negativity in couples (Jacob & Johnson, 1997); and men's negative dyadic coping was negatively related to both spouses marital quality (Bodenmann, Pihet, & Kayser, 2006; Herzberg, 2013; Papp & Witt, 2010). In the present study, we addressed only husbands' positive behaviors in couple and thus partner effects were not significant.

### *Implications for therapy*

The findings of the present study support the importance of addressing partners' individual emotional regulation strategies within the context of working with couples. Couple therapists may want to assess each partner's CER strategies to determine whether an intervention is needed to address dysfunctional cognitions before implementing dyadic interventions or in addition to couple-oriented interventions. Couple therapies could focus on interventions targeting cognitions contributing to maladaptive emotion regulation. Through cognitive restructuring, cognitive reframing, and cognitive distraction, partners could improve their individual coping skills in confronting with stress. According to STM (Bodenmann, 2005), individual emotion regulation is beneficial for relationship functioning, as a lower level of stress is spilling into the close relationship when both partners are able to cope by their own with the negative emotions.

The role of cognitions in coping with stress in couples can be addressed in relationship education programs, such as Couples Coping Enhancement Training (CCET; Bodenmann & Shantinath, 2004). CCET uses methods of cognitive behavioral therapy with couples for enhancing partners' individual and dyadic coping skills. Before addressing dyadic coping, CCET focuses on explaining to the partners the association between cognitive reappraisal and emotions in stressful situations and teaches them efficient coping techniques at the individual level. The results of our study emphasize the role of cognitions in emotion regulation and dyadic coping and support the usefulness of addressing both skills in relationship education programs. Thus, when partners could downregulate their negative emotions in times of stress using adaptive cognitions, they will engage in more positive dyadic coping strategies (such as supportive, common, and delegated coping).

### *Strengths and limitations*

The present study had strengths in its conceptual and methodological design, such as (a) testing dyadic coping as a mediating mechanism in the association between emotion regulation and relationship satisfaction, (b) using dyadic data analyses for revealing both actor and partner effects and for investigating gender differences, and (c) using a relatively large and understudied sample of couples from Eastern Europe. In addition to its strengths, this study had limitations. One is that the mediation was tested in a cross-sectional design, which does not allow us to make causal assumptions and does not permit us to know whether the mediation effect is stable over time (MacKinnon & Fairchild, 2009). A second limitation is related to self-report measures, which increases

the subjectivity and social desirability. However, retrospective self-report measures are not only easy to administrate, as it could be more difficult to assess, for example, cognitive conscious emotion regulation strategies using behavioral or physiological measures, but they could also provide valuable information on beliefs about emotions (Robinson & Clore, 2002). Despite these limitations, this study furthers our understanding of the role that CER plays in couple interaction. Moreover, our findings point out important targets for therapy designed to improve partners' emotion regulation, positive dyadic coping strategies, and relationship satisfaction.

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