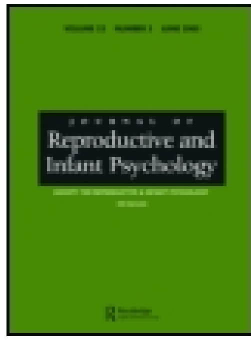

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Mothers' and fathers' attachment and caregiving representations during transition to parenthood: an actor–partner approach

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ABSTRACT

Objective: This study aimed to investigate the effect of one's attachment representations on one's and the partner's caregiving representations.
Background: According to attachment theory, individual differences in parenting and caregiving behaviours may be a function of parents' caregiving representations of the self as caregiver, and of others as worthy of care, which are rooted on parents' attachment representations. Furthermore, the care-seeking and caregiving interactions that occur within the couple relationship may also shape individuals' caregiving representations.
Methods: The sample comprised 286 cohabiting couples who were assessed during pregnancy (attachment representations) and one month post-birth (caregiving representations). Path analyses were used to examine effects among variables.
Results: Results showed that for mothers and fathers, their own more insecure attachment representations predicted their less positive caregiving representations of the self as caregiver and of others as worthy of help and more self-focused motivations for caregiving. Moreover, fathers' attachment representations were found to predict mothers' caregiving representations of themselves as caregivers.
Conclusions: Secure attachment representations of both members of the couple seem to be an inner resource promoting parents' positive representations of caregiving, and should be assessed and fostered during the transition to parenthood in both members of the couple.

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Attachment representations; caregiving representations; couple dynamics; gender; transition to parenthood

During the transition to parenthood, parents have to adapt to their new roles as caregivers (Van Egeren, 2004) while seeking balance between family responsibilities and professional and social domains (Rentfro, 2011). Moreover, parents face several interpersonal changes, namely in their relationship with their partner (Levy-Shiff, 1994) and also in the relationship with their new child. Therefore, the transition to parenthood is a stressful life transition for both parents, and their attachment representations are expected to become activated, thus influencing both parents' expectations, behaviour and subsequent adjustment (Feeney,

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Alexander, Noller, & Hohaus, 2003). Moreover, assuming the role of caregivers of their newborn child, who is highly dependent of care, requires that parents activate the caregiving behavioural system and its associated representations (George & Solomon, 1996, 1999; Mikulincer & Shaver, 2007).

According to attachment theory (Bowlby, 1969), caregiving representations, which are based on the individual's history of caregiving interactions with the social environment, have been conceptualised in terms of representations of the self as caregiver (i.e. the degree to which individuals perceive themselves as capable of recognising others' needs for care and of providing effective care) and representations of others (either significant others or needy others) as care receivers (i.e. the degree to which they perceive others as deserving care; George & Solomon, 1996; Reizer & Mikulincer, 2007). Caregiving representations play a key role in parental caregiving behaviours, as they guide individuals' cognitions, behaviours and emotions in caregiving interactions (Reizer & Mikulincer, 2007). Positive caregiving representations of the self as caregiver and of others as worthy of care are associated with the provision of effective care (i.e. sensitive and responsive caregiving to the child's needs; George & Solomon, 1996, 1999), while negative caregiving representations are associated with ineffective caregiving strategies, such as deactivation (i.e. systematic dismissal or misinterpretation of the information that signals the child's needs and limited involvement in caregiving) or hyperactivation (i.e. inconsistent, excessive and intrusive provision of care, that is often asynchronous with the child's needs; Ackerman, 2009; George & Solomon, 1996) of the caregiving system, which may foster the development of insecure attachment styles in the child (Mikulincer & Shaver, 2007).

Continuity between attachment representations and caregiving representations

Attachment representations are rooted in individuals' early experiences of interactions with their caregivers and have been organised in two dimensions: attachment-related anxiety (i.e. the degree to which individuals are concerned about others' availability in times of need and are sensitive to rejection/abandonment) and avoidance (i.e. the degree to which individuals strive to maintain emotional distance and independence from others). Low scores on both dimensions characterise attachment security (i.e. positive beliefs about one's own worth and others' intentions/traits), whereas high scores on attachment-related anxiety and/or avoidance characterise attachment insecurity (negative representations of the self and/or others, respectively; Brennan, Clark, & Shaver, 1998; Simpson, Rholes, Campbell, & Wilson, 2003).

Attachment theory (Bowlby, 1969) highlights the continuity between the individual's attachment representations and his/her subsequent caregiving representations (Collins & Ford, 2010; Collins, Ford, Guichard, Kane, & Feeney, 2009). Accordingly, more secure attachment representations were found to promote the individual's willingness and ability to provide care to others, while insecure attachment representations may inhibit adequate caregiving (Bowlby, 1969; George & Solomon, 1999; Jones, Cassidy, & Shaver, 2015) and hinder the provision of responsive secure base support (Feeney, Collins, Van Vleet, & Tomlinson, 2013). Furthermore, attachment representations may exert proximal influences on caregiving representations, as a threatened sense of security – which puts the focus on the individual's own vulnerabilities – may compromise individuals' willingness to answer to others' needs and may activate egoistic motives for caregiving (e.g. to avoid negative

consequences; Feeney et al., 2013), leading to the development of more negative caregiving representations (Collins & Ford, 2010; Kunce & Shaver, 1994).

Despite the association between attachment and caregiving representations being theoretically highlighted (Bowlby, 1969), to our knowledge, only two studies have examined this link. First, George and Solomon (1996) found a congruence of 69% between maternal attachment and caregiving representations, while no men were included in the study. Recently, Moreira and Canavarro (2015) found that parents of school-aged children with high attachment-related avoidance perceived themselves as less able to provide care, had more egoistic motives for caregiving and considered others as less deserving of care, whereas parents with high attachment-related anxiety seemed to perceive themselves as less able to recognise others' needs for help and had more egoistic motives for caregiving. However, this was a cross-sectional study, and the majority of the sample was comprised of mothers, which may limit the generalisability of the results. Several other studies have devoted their attention to the relationship between attachment representations and parents' caregiving behaviour (Jones et al., 2015), also focusing mainly on mothers. Mothers with secure attachment representations were found to be more sensitive caregivers than mothers with insecure attachment representations (Adam, Gunnar, & Tanaka, 2004; Pederson, Gleason, Moran, & Bento, 1998; Rholes, Simpson, & Blakely, 1995; Selcuk et al., 2010).

The role of the partner's attachment representations

As mothers tend to assume the role of primary caregivers of the child in the first months post-birth (Katz-Wise, Priess, & Hyde, 2010), the role of fathers has been largely neglected in the literature concerning attachment and caregiving during the transition to parenthood (Jones et al., 2015). Some previous studies have found that mothers tend to present more positive representations of the self as caregiver and less egoistic motives to provide help than fathers (Fonseca, Nazaré, & Canavarro, 2013; Moreira & Canavarro, 2015; Reizer & Mikulincer, 2007). Moreover, there is evidence of differences in how attachment representations relate to some aspects of parenting as a function of parent gender (see Jones et al., 2015, for a review), suggesting the need to further explore the relationship between attachment and caregiving representations in both parents.

Moreover, there is also some evidence that a partner's representations may influence the other partner's representations through the nature and quality of caregiving interactions within the couple (Bell & Richard, 2000), as they may offer opportunities to reinforce or challenge pre-existing representations. Specifically, although the effects of a partner's attachment representations on the other's caregiving representations have not been examined directly, there is some evidence that the partner's attachment representations may play a role in mothers' parenting behaviours, which are shaped by their caregiving representations. One study found that mothers with insecure attachment representations are more supportive towards their children when they are married to men with secure attachment representations (Cohn, Cowan, Cowan, & Pearson, 1992). Therefore, for mothers with insecure attachment representations, the secure partner's higher sensitivity and responsiveness to the mother's needs (Feeney, 1996; Feeney & Hohaus, 2001) may provide positive and disconfirming caregiving experiences (Simpson et al., 2003), reducing the negative effects of insecurity (Johnson & Best, 2002) and positively influencing the mother's caregiving representations.

The current study

Adopting the dyadic perspective of the Actor–Partner Interdependence Model (APIM; Cook & Kenny, 2005) depicted in Figure 1, this study aimed to investigate the role of each parent's attachment representations on their own caregiving representations (actor effects) and on their partner's caregiving representations (partner effects).

Method

Participants and procedure

This study is part of a longitudinal study approved by the Ethics Committee of Centro Hospitalar e Universitário de Coimbra, EPE. The inclusion criteria for the present study were: (1) being pregnant without any indication of fetal anomalies or other medical problems; (2) being married/cohabiting with a partner who agreed to participate; and (3) being 18 or older (for both partners). Sample collection took place at the Obstetrics Department of Centro Hospitalar e Universitário de Coimbra, EPE between September 2009 and March 2012. All women and their partners were approached by the researcher prior to their second-trimester obstetric appointment ($M = 20.15$ gestational weeks, SD = 6.02; Time 1). The study goals were presented and informed consent was obtained from those who agreed to participate in the study. Each couple was given two versions of the questionnaires and was told that both partners should complete the questionnaires separately at home and return them to the researchers at the following medical appointment. The participants were contacted again one month after childbirth (Time 2). The questionnaires were mailed to the participants along with a pre-stamped envelope to return them. At Time 1, participants answered questionnaires concerning attachment representations, and at Time 2, participants were assessed concerning caregiving representations. Attrition rate between Time 1 ($n = 450$ couples) and Time 2 ($n = 286$ couples) was 36.4%. No significant differences in sociodemographic characteristics were found between participants who answered both Time 1 and Time 2 questionnaires and participants who answered only Time 1 questionnaires (data not shown). Moreover, no significant differences were found in attachment representations between participants who answered both Time 1 and Time 2 and participants who dropped out from the study (Attachment-related Anxiety: $F = 1.19$, $p = .276$; Attachment-related Avoidance: $F = 0.23$, $p = .632$).

The final sample comprised 286 couples. The sample characteristics are presented in Table 1.

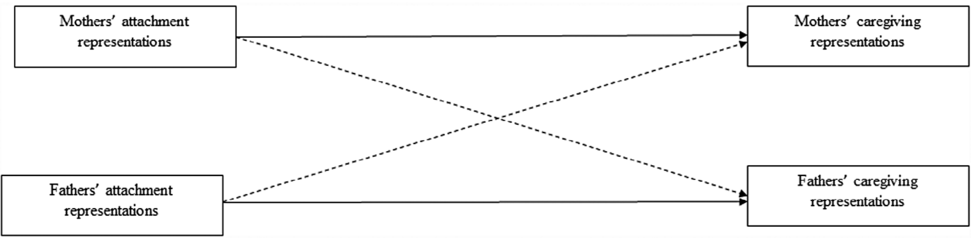

Figure 1. Actor–partner interdependence model of the influence of attachment representations on caregiving representations during the transition to parenthood.

Measures

In addition to a sociodemographic and clinical form, the participants answered to the Portuguese versions of the following.

Adult Attachment Scale – Revised (AAS-R; Canavarro, Dias, & Lima, 2006).

This scale assesses attachment representations and consists of 18 items, answered using a five-point Likert scale (from 1 = Not at all characteristic of me to 5 = Extremely characteristic of me) and organised in two dimensions: Attachment-related Anxiety (six items, e.g. 'I find that others are reluctant to get as close as I would like') and Attachment-related Avoidance (12 items, e.g. 'I find that people are never there when you need them'). Higher scores on the Attachment-related Anxiety dimension indicate more insecure attachment representations of the self, while higher scores in the Attachment-related Avoidance dimension were indicative of more insecure attachment representations of others.

Mental Representations of Caregiving Scale (MRCS; Fonseca et al., 2013).

This scale assesses caregiving representations and comprises 27 items, answered using a seven-point Likert scale (from 1 = Strongly disagree to 7 = Strongly agree). The MRCS is organised in four dimensions: Ability and Availability to Provide Effective Care (Self_Provider; nine items, e.g. 'I can alleviate others' distress in an effective way'), Ability to Recognise the Other's Needs (Self_Recogniser; six items, e.g. 'I sometimes miss the subtle signs that show me how the other person is feeling'), Self-Focused Motivations to Provide Care (Self_Motivations; eight items, e.g. 'I help others while expecting to get some personal reward'), and Appraisal of Others as Worthy of Help (Others_Worthy; four items, e.g. 'In my opinion, a person should solve his problems on his own'). Following the theoretical conceptualisation of caregiving representations (George & Solomon, 1996), the first two dimensions (Self_Provider and Self_Recogniser) were grouped into the latent variable Self_Caregiver. A confirmatory factor analysis supported the construct validity of this measure to assess caregiving representations ($\chi^2_{(309)} = 486.96$, $p < .001$; $\chi^2/df = 1.58$, CFI = 0.90; SRMR = 0.049). Higher scores indicate more positive perceptions of the self as caregiver (Self_Provider and Self_Recogniser) and of others as worthy of help (Others_Worthy), and more self-focused motivations to provide care (Self_Motivations).

Table 1. Sociodemographic and clinical characteristics of the sample ($N = 286$ couples).

	Mothers ($n = 286$)	Fathers ($n = 286$)	
	M (SD)	*M* (SD)	*t*
Age	34.16 (5.17)	35.58 (5.99)	−4.90*
Educational level (in years)	13.69 (3.71)	12.28 (4.13)	6.94*
Relationship length in years	7.33 (4.87)		
	n (%)	*n* (%)	χ^2
Profissional status: Employed	244 (85.6)	272 (95.1)	21.90*
Clinical variables	*n* (%)		
Parity: *Primiparity*	136 (47.6)		
Complications during the current pregnancy: *Yes*	53 (19.1)		
History of pregnancy loss: *Yes*	72 (25.5)		
History of preterm delivery: *Yes*	19 (7.0)		
History of infertility: *Yes*	26 (9.5)		
Infant's sex: *Female*	148 (51.9)		
Infant's gestational age at birth *(M*, SD)	*M* = 38.85 weeks, SD = 1.54		

*$p < .001$.

Data analyses

Statistical analyses were performed using the Statistical Package for the Social Sciences (IBM SPSS, v. 19). Data analyses were performed on the couple as a unit. The database was restructured to consider each couple as the subject of the analysis and each partner's score as a different variable. Descriptive statistics and bivariate Pearson correlations were computed among the study variables and the background (sociodemographic and clinical) variables for characterisation purposes.

To examine the influence of both parents' attachment representations on caregiving representations, a path analysis model was constructed with Analysis of Moments Structures (AMOS IBM Corporation, Meadville, PA), using the maximum likelihood estimation method (Kline, 2005). In accordance with the APIM (Cook & Kenny, 2005), mothers' and fathers' attachment representations were the exogenous variables and mothers' and fathers' caregiving representations were the outcome variables. To account for the interdependence between partners, correlations between mothers' and fathers' attachment representations were included, and mothers' and fathers' disturbances for caregiving representations were also correlated. Background variables associated with the study variables were also entered in the model. The overall model fit was ascertained using the reference values for the main fit indices: the chi-squared goodness-of-fit statistic (p value > .05), the Comparative Fit Index (CFI; ≥.95), and the Standardised Root-mean-square Residual (SRMR; ≤.06; Hu & Bentler, 1999). Moreover, a second model where equality of path weights across mothers and fathers were imposed (equally constrained model) was examined. Significant chi-square changes ($\Delta\chi^2$) between the first model and the equally constrained models indicated that the path coefficients differed between mothers and fathers.

Results

Preliminary analyses

No significant associations between the background (sociodemographic and clinical variables) and the study variables were found, except for mother's age and attachment-related anxiety ($r = -.145$, $p = .014$).

Table 2 presents the means, standard deviations and bivariate Pearson correlations among the study variables. Significant associations were found between attachment and caregiving representations for both mothers and fathers.

Effects of attachment representations on caregiving representations

The path analysis model is depicted in Figure 2 and the significance of the different paths of the model is presented in Table 3. The results indicate that the model has a very good fit to the data ($\chi^2_{(34)} = 55.33$, $p = .012$; $\chi^2/df = 1.63$, CFI = 0.96; SRMR = 0.047).

Actor effects

As seen in Table 3, for mothers, higher levels of attachment-related anxiety predicted less-positive representations of the self as caregiver (Self_Caregiver), while higher levels of attachment-related avoidance predicted more self-focused motivations to provide care

Table 2. Descriptives and Pearson correlations between mothers' and fathers' representations of attachment and representations of caregiving ($N = 286$ couples).

Variable					Mothers						Fathers				
		M	SD	α	1	2	3	4	5	6	7	8	9	10	11
Mothers	1. Att-rel Anxiety	2.17	0.73	.85											
	2. Att-rel Avoidance	2.60	0.41	.66	.40***										
	3. Self_Provider	5.56	0.66	.77	−.04	−.11									
	4. Self_Recogniser	5.33	0.96	.75	−.19**	−.19**	.36***								
	5. Self_Motivations	1.83	0.65	.66	.16**	.22**	−.37***	−.41***							
	6. Others_Worthy	4.88	1.42	.79	−.06	−.14*	.25***	.23***	−.36***						
Fathers	7. Att-rel Anxiety	2.14	0.67	.82	.29***	.09	.12*	−.08	.01	.06					
	8. Att-rel Avoidance	2.61	0.43	.66	.04	.19**	−.08	−.13*	.09	−.00	.46***				
	9. Self_Provider	5.29	0.73	.78	.01	−.05	.31***	.12*	−.14*	.13*	−.16**	−.17**			
	10. Self_Recogniser	4.77	1.09	.80	−.08	−.16**	.04	.27***	−.16**	.10+	−.29***	−.28***	.29***		
	11. Self_Motivations	2.15	0.76	.70	.03	.11+	−.15**	−.17**	.29***	−.14*	.24***	.30***	−.36***	−.27***	
	12. Others_Worthy	4.71	1.32	.73	−.03	.07	.10+	.15*	−.14*	.35*	−.02	−.25***	.10	.17**	−.33***

Note: Att-rel Anxiety: Attachment-related Anxiety; Att-rel Avoidance: Attachment-related Avoidance; Self_Provider: Representations of the self as able to provide effective care; Self_Recogniser: Representations of the self as able to recognise others' needs; Self_Motivations: Self-focused motivations for caregiving; Others_Worthy: Representations of others as worthy of help.

$^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$.

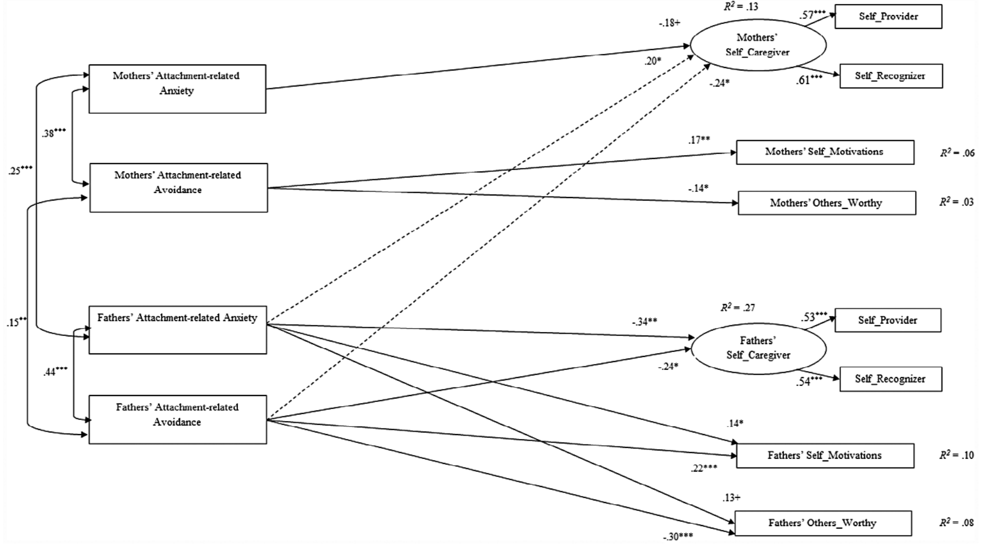

Figure 2. Path model of actor and partner effects of attachment representations on mothers' and fathers' caregiving representations. *Note*. Self_Caregiver: Representations of the self as caregiver; Self_Provider: Representations of the self as able to provide effective care; Self_Recogniser: Representations of the self as able to recognise others' needs; Self_Motivation: Self-focused motivations for caregiving; Others_Worthy: Representations of others as worthy of help. For simplicity, measurement error terms and non-significant paths are not presented. The estimate of the association between mothers' age and mothers' Attachment-related Avoidance was −.13 ($p = .011$). Partner effects are represented by dashed arrows. $^{+}p = .05$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$.

(Self_Motivations) and less-positive caregiving representations of others as worthy of help (Others_Worthy).

For fathers, higher levels of attachment-related anxiety and of attachment-related avoidance predicted less-positive representations of the self as caregiver (Self_Caregiver) and more self-focused motivations to provide care (Self_Motivations). Moreover, higher levels of attachment-related anxiety and lower levels of attachment-related avoidance predicted more positive representations of others as worthy of help (Others_Worthy).

Partner effects

Fathers' higher levels of attachment-related anxiety and lower levels of attachment-related avoidance were found to predict mothers' more positive representations of the self as caregiver (Self_Caregiver).

Gender differences

The model that imposed equality constraints in mothers' and fathers' path coefficients also presented a very good fit to the data ($\chi^2_{(46)} = 67.99$, $p = .019$; $\chi^2/df = 1.49$, CFI = 0.96; SRMR = 0.041), with the chi-square change between the models being non-significant [$\Delta\chi^2_{(12)} = 12{,}66$, $p = 0.394$], which suggests the absence of significant gender differences in the path coefficients.

Table 3. Actor and partner effects of attachment representations on caregiving representations.

	Unstandardised coefficients	Standardised coefficients	*p* value
Dependent variables: Mothers' caregiving representations			
Mothers' Att-related Anxiety -> Self_Caregiver	**−.093**	**−.182**	**.050**
Mothers' Att-related Avoidance -> Self_Caregiver	−.150	−.166	.065
Fathers' Att-related Anxiety -> Self_Caregiver	**.111**	**.199**	**.038**
Fathers' Att-related Avoidance -> Self_Caregiver	**−.205**	**−.235**	**.013**
Mothers' Att-related Anxiety -> Self_Motivations	.097	.109	.098
Mothers' Att-related Avoidance -> Self_Motivations	**.264**	**.168**	**.009**
Fathers' Att-related Anxiety -> Self_Motivations	−.068	−.070	.301
Fathers' Att-related Avoidance -> Self_Motivations	.121	.080	.228
Mothers' Att-related Anxiety -> Others_Worthy	−.059	−.030	.652
Mothers' Att-related Avoidance -> Others_Worthy	**−.471**	**−.137**	**.036**
Fathers' Att-related Anxiety -> Others_Worthy	.173	.081	.239
Fathers' Att-related Avoidance -> Others_Worthy	−.038	−.011	.865
Dependent variables: Fathers' caregiving representations			
Fathers' Att-related Anxiety -> Self_Caregiver	**−.195**	**−.338**	**.001**
Fathers' Att-related Avoidance -> Self_Caregiver	**−.221**	**−.244**	**.014**
Mothers' Att-related Anxiety -> Self_Caregiver	.056	.106	.275
Mothers' Att-related Avoidance -> Self_Caregiver	−.155	−.165	.081
Fathers' Att-related Anxiety -> Self_Motivations	**.163**	**.143**	**.031**
Fathers' Att-related Avoidance -> Self_Motivations	**.391**	**.220**	**.001**
Mothers' Att-related Anxiety -> Self_Motivations	−.048	−.046	.475
Mothers' Att-related Avoidance -> Self_Motivations	.127	.069	.273
Fathers' Att-related Anxiety -> Others_Worthy	**.258**	**.132**	**.051**
Fathers' Att-related Avoidance -> Others_Worthy	**−.922**	**−.300**	**.001**
Mothers' Att-related Anxiety -> Others_Worthy	−.064	−.035	.588
Mothers' Att-related Avoidance -> Others_Worthy	−.152	−.048	.452

Note: Self_Caregiver: Representations of the self as caregiver; Self_Motivations: Self-focused motivations for caregiving; Others_Worthy: Representations of others as worthy of help.
Significant paths are presented in bold.

Discussion

The findings of the present study provide some evidence of continuity between mothers' and fathers' own attachment and caregiving representations during transition to parenthood,

suggesting that attachment (in)security may exert influence on how mothers and fathers see themselves as caregivers and see others as worthy of help, and on the extent to which they present self-focused motivations to provide care. Congruently with theoretical assumptions (Bowlby, 1969; George & Solomon, 1996), attachment insecurity seems to compromise individuals' willingness and ability to answer to others' needs, with a similar global pattern of relationships found for mothers and fathers.

Considering representations of the self as caregiver, our results showed that mothers and fathers with high attachment-related anxiety tend to present less-positive caregiving representations of themselves as caregivers, i.e. perceive themselves as less-able to recognise others' needs and to provide effective care. During the transition to parenthood, both parents must adapt to their new roles (e.g. being a mother/father) and learn how to effectively care for their highly dependent newborn infant (Mendes, 2007), which may be a stressful and demanding experience. Given their excessive focus on their own distress and attachment needs (e.g. mental rumination) when facing the stress-inducing experience of caregiving (Mikulincer & Florian, 1995, 1998), mothers and fathers with high attachment-related anxiety may be deprived of the mental resources needed to be aware of others' signs (Mikulincer & Shaver, 2007; Moreira & Canavarro, 2015). This may lead to a hyperactivation of the caregiving system in a way that is asynchronous with the child's needs (Ackerman, 2009; George & Solomon, 1996) and to less-responsive parental behaviours (Jones et al., 2015), and consequently to the development of less positive representations of themselves as able to recognise others' needs and to provide effective care. These results are consistent with prior studies suggesting that parents with high attachment-related anxiety tend to be less-sensitive to their child's signs of need (e.g. Adam et al., 2004; Selcuk et al., 2010). Furthermore, although the pattern of results was similar for mother and fathers, our results showed that fathers' high attachment-related avoidance was also associated with less positive representations of themselves as caregivers. As individuals with high attachment-related avoidance tend to use distancing coping strategies (at the cognitive and behavioural levels) to cope with stress-inducing events (Mikulincer & Florian, 1995, 1998), such as caregiving interactions, in order to avoid emotional activation, they may opt to separate themselves from the caregiving role and to deactivate their caregiving system (Ackerman, 2009; George & Solomon, 1996). The avoidance of stress-inducing caregiving interactions may prevent them from developing positive perceptions of themselves as able to identify and recognise the child's needs and to provide effective care (Mikulincer & Shaver, 2007; Moreira & Canavarro, 2015). Although this hypothesis should be explored further, it is possible that this result was not found for mothers because they usually assume the role of main caregivers during the first months post-birth (Katz-Wise et al., 2010), so they are faced with the need to provide care to their newborn child; as there is evidence that parental confidence is positively related with the number of opportunities for involvement in caregiving tasks (e.g. Leahy-Warren & McCarthy, 2011), it is possible that caregiving interactions may prompt mothers to develop more positive representations of themselves as caregivers, even in the presence of high attachment-related avoidance.

Considering caregiving representations of the others, our results showed that, for both mothers and fathers, high attachment-related avoidance predicted less positive caregiving representations of others as worthy of help. In fact, the appraisal of others as less worthy of help may itself be a cognitive strategy that helps parents with high attachment-related avoidance to maintain independence from the stress-inducing caregiving role and its

demands. Moreover, fathers with high attachment-related anxiety tended to present more positive caregiving representations of others as worthy of help. Despite being a marginally significant trend, this result is unexpected and should be explored further. In fact, the literature suggests that individuals with high attachment-related anxiety tend to use hyperactivation strategies in caregiving interactions, which may translate into excessive and intrusive provision of care to their child (George & Solomon, 1996; Mikulincer & Shaver, 2007). Therefore, it is possible that these individuals hold positive representations of others as worthy of help, although they are unable to respond in a sensitive and responsive manner to their child's needs due to their difficulties in recognising others' needs.

Moreover, attachment insecurity (high attachment-related anxiety and high attachment-related avoidance) seems to lead to the emergence of more self-focused motivations to provide care. As opposed to parents with secure attachment representations, who have their attachment needs met and show willingness and ability to provide care to others (George & Solomon, 1996, 1999), the threatened sense of security of parents with more insecure attachment representations of the self and of others (Bowlby, 1969; Collins & Ford, 2010) seem to contribute to the development of more self-focused motivations to provide care, as they are more focused in trying to satisfy their own needs (e.g. obtaining personal benefits by reducing their distress or by keeping emotional distance from others; Feeney et al., 2013). The self-focused motivations to provide care are contrary to the altruistic nature of the caregiving behavioural system (Reizer & Mikulincer, 2007) and are related with the provision of less-effective secure base support (Feeney et al., 2013).

Finally, our results also highlight that mothers' caregiving representations may also be shaped in the context of couple interactions, namely by the crossover effects of fathers' attachment representations on mothers' caregiving representations. In fact, for some individuals, romantic intimate relationships may constitute the first significant caregiving experience, as these relationships are characterised by a dynamic interplay of care-seeking and caregiving behaviours (Collins & Ford, 2010; Mikulincer & Shaver, 2007) and the quality of the couple's relationship may influence parents' caregiviging representations (Solomon & George, 1996). Although this link was not explored in the present study, there is evidence that individuals with secure attachment representations have higher relationship commitment, intimacy and satisfaction (Feeney, 1996; Feeney et al., 2013; Treboux, Crowell, & Waters, 2004), as they are better able to cultivate mutually supportive relationships through effective support-seeking and support-provision behaviours (Kane et al., 2007), which may be generalisable to the parent–child caregiving interactions. Specifically, our results showed that mothers have more positive representations of themselves as caregivers when their partners have low attachment-related avoidance. Fathers with low attachment-related avoidance, that is, who are confident about others' availability to provide effective help (Collins & Feeney, 2000; Mikulincer & Florian, 1998), may promote more positive caregiving interactions within the couple, being responsive to their partners' needs and making them feel validated, understood and cared for (Collins & Feeney, 2004; Feeney & Hohaus, 2001). These positive caregiving interactions within the couple may provide positive and even disconfirming experiences for these mothers (Simpson et al., 2003), which may help them to feel more confident in mother–child caregiving interactions and to develop more positive representations of themselves as caregivers.

On the other hand, our results also showed that fathers' high attachment-related anxiety predicted their partners' more positive representations of the self as caregiver. As mentioned

previously, fathers' high attachment-related anxiety may result in an excessive focus on their own needs and distress (Collins & Feeney, 2000; Mikulincer & Florian, 1998), which may lead these men to avoid participating in caregiving interactions with their child and to rely more on their partners' support concerning the infant's caregiving tasks and responsibilities; this may act as a compensatory mechanism that may reinforce mothers' representations of themselves as able to recognise their child's needs and to provide effective care.

Strengths and limitations

The major contribution of this study is the use of a dyadic design that included both members of the couple and that explored mothers' and fathers' experiences while controlling for the interdependence of their scores (Cook & Kenny, 2005). The focus on the relationship between attachment and caregiving representations is another contribution of this study. However, there are also some limitations. First, the generalisation of these findings is restricted to couples experiencing the transition to parenthood; further studies should investigate continuity and changes in mothers' and fathers' caregiving representations during the first years of parenthood. Moreover, we cannot exclude the possible role of cultural influences (e.g. cultural traditions, practices and beliefs about parenthood, namely related with the tasks division and with the father's involvement in the caregiving role) in how parents adapt to their experience as caregivers (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000), which may also have influenced our results. Second, attachment representations were only assessed during pregnancy; although the stability of attachment representations was theoretically highlighted (Bowlby, 1969), possible changes in this variable during the transition to parenthood were not taken into account and should therefore be considered in future studies.

Conclusion and practice implications

Given the role of caregiving representations in parents' caregiving behaviours (George & Solomon, 1996, 1999), our findings are clinically relevant for two reasons. First, our results show that secure attachment representations may be conceptualised as an inner resource to promote parents' positive caregiving representations. Therefore, attachment representations should be assessed during the transition to parenthood, to more quickly identify parents who may be at a higher risk of developing negative caregiving representations, which may translate into poorer caregiving behaviours. High-risk parents should be the focus of specialised psychological interventions during pregnancy, focusing on the reappraisal of their prior experiences of being cared for, and on the development of effective coping strategies (e.g. activation of social networks that provide emotional and instrumental support to deal with the caregiving tasks) to handle the stress-inducing experience of caregiving. In addition to the reappraisal of their prior experiences of being cared for, these couples should be followed during the first months post-birth, and their parenting skills should be fostered, as caregiving interactions with their child may be important opportunities to disconfirm existing negative caregiving representations and to promote more positive representations of themselves as caregivers and of others as worthy of help. Second, the results show the couple's interdependence during the transition to parenthood. Therefore, assessment and

interventions should be outlined to include both mothers and fathers, attending to their similarities and specificities.

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