The influence of attachment representations and co-parents’ scripted knowledge of attachment on fathers’ and mothers’ caregiving representations

Elia Psouni

Department of Psychology, Lund University, Lund, Sweden

ABSTRACT
Despite increased engagement of men in parenting, paternal caregiving representations have not been investigated, and potential gender differences in the links between parents’ attachment representations and their caregiving representations are unexplored. The present study investigated fathers’ and mothers’ (N = 77) representations of caregiving, and links to their own and their co-parents’ current mental representations of attachment. Parents were interviewed with the Adult Attachment Interview (AAI) and the Parental-Caregiving Attachment Interview (P-CAI), and co-parents’ attachment scripts were measured with the Attachment Script Assessment (ASA). Our results demonstrate several similarities between mothers’ and fathers’ caregiving representations, but gender differences emerged in probable rejecting and neglecting parental behaviors. For both fathers and mothers, we found systematic differences in caregiving-specific state of mind dimensions on the P-CAI, depending on the parent’s attachment classification on the AAI. Importantly, co-parent attachment security, but not parent gender was associated with the likelihood of being classified as autonomous with respect to caregiving.

KEYWORDS
Fathers; attachment; parental caregiving; mental representations; co-parent influences

Introduction
Revisiting the role of the father in parenting is an important component of recent societal changes in most Western societies. With more mothers employed outside the home and more fathers actively taking care of their children, finding ways to effectively support fathers’ caregiving work and further promote their positive engagement is important (Casey et al., 2017; Pruett, Pruett, Cowan, & Cowan, 2017). While there appear to be systematic differences between fathers and mothers in some aspects of caregiving behavior (e.g., Hazen, McFarland, Jacobvitz, & Boyd-Soisson, 2010; Murphy, Gallegos, Jacobvitz, & Hazen, 2017), it is still unclear whether there may also be systematic differences in what is suggested to underlie these behaviors, namely the parent’s thoughts, feelings and strategies for processing information in the parent–child relationship, i.e. mental representations of caregiving (George & Solomon, 1996). To address this issue, the present study investigated whether and how fathers’ and mothers’ representations of caregiving may be linked to their own current mental
representations of attachment and their co-parent’s attachment security; the study also assessed potential gender differences in those links.

Attachment research that includes fathers has established that children form distinct attachment relations to each of their caregivers (e.g., Main, Kaplan, & Cassidy, 1985; Main & Weston, 1981) and confirmed a link between paternal attachment security and the child’s attachment security (van IJzendoorn, 1995; van IJzendoorn & De Wolff, 1997). Comparisons of the importance of mother and father, respectively, as caregiver, have yielded more inconsistent results, rendering the attachment relationship to the father as less crucial (e.g., Lucassen et al., 2011), or important in a different way (e.g., Grossmann et al., 2002; Steele & Steele, 2005), but mainly suggesting that child outcomes may be best predicted by combining information about the child’s attachments to both mother and father (e.g., Grossmann, Grossmann, & Kindler, 2005; Sagi-Schwartz & Avierez, 2005; see also Dagan & Sagi-Schwartz, 2018). More recent findings highlight unique developmental benefits from the child’s attachment to father (Groh et al., 2014; Kochanska & Kim, 2013; Lucassen et al., 2015), while meta-analysis indicates that the mother’s and father’s adult attachment representations based on their upbringing are equally associated to the child’s attachment security (Verhage et al., 2018).

**Parental caregiving representations**

There is ample evidence for Bowlby’s (1969/1982, 1973) suggestion that the development of attachment security is influenced by specific aspects of caregiving behavior during infancy (e.g., Bigelow et al., 2010; van IJzendoorn, 2005), which in turn have been theoretically and empirically linked to the caregiver’s attachment representations (Steele, Steele, & Fonagy, 1996; van IJzendoorn, 1995). However, the links between caregiver attachment representations and child attachment security, are not very strong (De Wolff & van IJzendoorn, 1997; George & Solomon, 1996; van IJzendoorn, 1995; Verhage et al., 2018). Thus, caregiving behaviors that predict important aspects of the parent–child interaction do not appear to have a simple relationship to the parent’s attachment representational system. The caregiver’s thoughts, feelings, and strategies for processing information in the parent–child relationship are in fact thought to be organized around a caregiving representational system. This system is regarded as distinct from the caregiver’s attachment representational system, but governed by higher processes of integration with access to the caregiver’s mental models of childhood experiences (George & Solomon, 1999; Hesse, 2008). Representations of caregiving are thought to be flexible and changeable as a function of adjustment to challenges of parenthood, specific characteristics of the child (Mayseless, 2006), and influences from experiences with the child’s other caregivers (Belsky & Kelly, 1994; Cowan & Cowan, 2000).

The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1984/1996) assesses adults’ current attachment representations through information about probable childhood experiences with one’s caregivers, and assessment of the quality of thought processes when one reconstructs and reflects upon those experiences (Main et al., 1985; see also Bretherton & Munholland, 2008). To access the content of parental representations of caregiving, different interviews have been devised, employing coding schemes inspired by, but in some cases deviating from, the AAI (for reviews see George & Solomon, 2008; Mayseless, 2006). Research with these interviews has detected moderate associations between mothers’ classification as Autonomous in the AAI and different aspects of their caregiving
representations, such as balance in affective experiences in relationship to the child (Aber, Belsky, Slade, & Crnic, 1999; George & Solomon, 1996; Mayseless & Scharf, 2006; Slade, Belsky, Aber, & Phelps, 1999; Zeanah, Benoit, Hirschberg, Barton, & Regan, 1995), ability to construe and empathically reflect upon the child’s mental state (Slade, Grienengerger, Bernbach, Levy, & Locker, 2005), and to flexibly balance realistic appraisals of their own needs with those of the child (George & Solomon, 1996).

**Fathers’ parental caregiving representations**

While the studies above provide some clues as to the way caregivers’ current mental representations of attachment may be linked to aspects of their caregiving representations, the focus of this research has been exclusively on mothers. Despite increasing active engagement of fathers in parental caregiving, paternal caregiving representations have not been investigated (Bretherton, 2010; George & Solomon, 2008), and it is thus unknown whether gender-specific features may characterize fathers’ recounting of their caregiving experiences with their children.

Based on recalled childhood experiences with their own parents, fathers have described their own fathers as less loving (McFarland-Piazza, Hazen, Jacobvitz, & BoydSoisson, 2012), but also less role-reversing than their mothers (Mayseless, Bartholomew, Henderson, & Trinkel, 2004), the latter also corroborated by observational data (Macfie, Houts, McElwain, & Cox, 2005). Compared to mothers, fathers have also evaluated their own parental caregiving as less loving, more neglecting, and more rejecting of their children (Putnick et al., 2012).

Although potential gender differences in the links between parents’ attachment representations and their parental caregiving representations are unexplored, there may be reasons to expect some gender-specific paths. For instance, it has been suggested that men’s experiences with their own fathers may have particular importance for their representations of themselves as parents and the confidence they have in their parental caregiving (Sharabany, Scher, & Gal-Krauz, 2006), but evidence has also been presented that it is the man’s relationship to his mother that most accounts for the extent to which he can confidently engage in sensitive caregiving (Madsen, Lind, & Munck, 2007; Scharf & Mayseless, 2011).

Finally aside from some evidence of lower levels of reflective functioning in fathers, compared to mothers (e.g., Esbjørn et al., 2013; Pazzagli, Delvecchio, Raspia, Mazzeschi, & Luyten, 2017), research has not provided any clues regarding other potential differences, or similarities, in mothers’ and fathers’ quality of thought processes when recounting and reflecting on their caregiving experiences with their children. For instance, if fathers are more dismissive in their parenting, does that mean that their caregiving representations also contain a stronger tendency to idealize themselves as parent or the quality of their relationship to the child?

**Co-parent influences**

Parenting is frequently carried out in collaboration with a co-parent, most often the child’s other parent. Co-parenting refers to the ways parents (or parenting figures) relate to each other in their parental caregiving work (Feinberg, 2003). When mothers and fathers begin jointly to engage in parental responsibilities and duties, they may work collaboratively, or undermine each other, in providing care for their child (Pruett et al.,
Consistently, positive or cooperative co-parenting implies that parents respect and support each other's parenting efforts, and can constructively manage conflict in child rearing (Feinberg & Kan, 2008). When co-parents are also romantic partners, the co-parenting relationship coexists and interacts with the couple (marital) relationship. Independently of the type of relationship between the co-parents, co-parenting does not include romantic, sexual, emotional, companionship, financial or legal aspects of this relationship.

Research suggests that increased father involvement in parental caregiving both enhances (Cowan, Cowan, Pruett, & Pruett, 2018; Pruett et al., 2017) and is enhanced by (Murphy et al., 2017) positive co-parenting, with consequent benefits for both the child’s development and the relationship between the parents (Casey et al., 2017; Cowan, Cowan, & Mehta, 2009; Cowan et al., 2018; Pruett et al., 2017). Notably, influences between co-parents are strong but complex (e.g., Cabrera, Fagan, Wigh, & Schadler, 2011; Psouni, Agebjörn, & Linder, 2017; Williams, 2018), involving interactions of parents’ beliefs, social values, desires and expectations (Feinberg, 2003). For instance, co-parents may be aligned in thought processes regarding caregiving and behave similarly in attachment-related situations (Howes & Spieker, 2008), but it has also been suggested that, rather, the mother’s feelings and attitudes have an impact on features of the father’s relationship to the child, for example, in terms of frequency and context (Allen & Hawkins, 1999; Murphy et al., 2017). Recent findings that the father’s unavailability may affect the child’s attachment security by reducing the mother’s ability to provide sensitive caregiving (Booth-LaForce et al., 2014) highlight the complexity of these issues and point to potential influences in the opposite direction.

Co-parent influences also involve attachment-related features such as expectations in close relationships, and strategies for processing and regulating emotion and relationship-related conflict. These features may, for instance, influence one’s capacity and willingness to act supportively to the other parent and collaboratively manage interactions and conflicts with the child. Independently of whether it is conceptualized as trait (measured by a self-report scale, e.g., Feinberg & Kan, 2008), within the context of one’s own attachment experiences (measured by the AAI, e.g., Alexandrov, Cowan & Cowan, 2005), or within the context of the couple relationship (measured by a couple attachment interview or other measure addressing couple attachment, e.g. Alexandrov et al., 2005), attachment security has been linked to couple relationship satisfaction, which in turn has been shown to affect the extent to which co-parents engage in cooperative co-parenting (e.g. Christopher, Umemura, Mann, Jacobvitz, & Hazen, 2015). However, although it has long been theoretically acknowledged that parents’ caregiving representations are open to influence (Cowan & Cowan, 2009; Mayseless, 2006), and experiences with the co-parent are a potential source of such influence (Belsky & Kelly, 1994; Bengtsson & Psouni, 2008), the role of one parent’s attachment security on the other parent’s caregiving representation has not been investigated. Furthermore, while some gender differences have been shown in the links between parenting behaviors of one parent and attachment security of the co-parent (e.g., Cowan et al., 2009; Feinberg & Kan, 2008), potential differences in how mothers’ and fathers’ representations of parental caregiving are influenced by the co-parent’s attachment security are unexplored.
The present study

To address the knowledge gap regarding fathers’ caregiving representations, the present study explored fathers’ and mothers’ representations of caregiving, with an overall aim of unraveling links to their own current mental representations of attachment and their co-parents’ attachment security, while assessing potential gender differences in these links.

In line with previous research, parents’ representations of attachment were operationalized and assessed through the AAI, to include probable experiences with one’s mother and father during childhood and current states of mind regarding these experiences. The caregiving representational system was defined as including the parent’s representations of his or her own past and present caregiving behaviors, perceptions of the child and of oneself as caregiver to this child, as well as current states of mind regarding the relationship to the child. Unique features reflecting the responsibility entailed in the parental role and the implications of this responsibility for the parent were also included: besides idealization, derogation, insufficient access to episodic content, preoccupying passivity and anger, we evaluated and focused especially on states of mind such as preoccupying guilt in relation to one’s child, as well as feelings of being rejected by one’s child, as particularly important features of the caregiving working model (see also Bengtsson & Psouni, 2008).

Attachment security in the co-parent was operationalized based on a measurement of their attachment scripts. Early attachment experiences are thought to be represented in memory as sensorimotor-affective schemas of sequenced events or scripts (see Nelson, 1986), encapsulating rudimentary knowledge about what caregivers usually do in different situations and, therefore, what to expect from them (Bretherton & Munholland, 2008). Consistent and coherent support from caregivers during infancy and early childhood is likely to result in scripts that are readily accessible and include the feature that the primary caregiver (and later on, other significant others) will be willing and able to provide support and soothing in times of need. By contrast, inconsistent or ineffective caregiver support in times of distress will likely result in less accessible or incomplete scripts, or scripts that include negative expectations about significant others. Attachment scripts have been proposed as key components of individual representations of attachment (Bretherton, 1991; Waters & Cummings, 2000), and coherence in the attachment representation is positively linked to attachment scripts as assessed by word prompted narratives (e.g., Coppola, Vaughn, Cassiba & Constantini, 2006; Di Folco, Messina, Zavattini, & Psouni, 2017; Psouni & Apetroaia, 2014). Word prompted narrative-based assessments of attachment scripts can thus be used as a measure of attachment representations (e.g., Psouni, Di Folco & Savattini, 2015; Schoenmaker et al., 2015), signifying the degree to which the individual has comprehensive and accessible scripted, secure-base/safe-haven knowledge.

Our representations of our parents form the core of our prototypical conception of “the other” in close relationships, which will be activated in relationships such as those with our child and co-parent (Bretherton & Munholland, 2008). Based on this notion, it was hypothesized that parents construe their children in ways similar to how they construe their caregivers. This would eventually lead to experienced affect and thought processes regarding attachment and caregiving that would result in similarities between
the two models in terms of states of mind, concerning reliance on idealization, derogation, and preoccupation. Such similarities are likely to lead to classification concordance with regard to attachment and caregiving, respectively.

Importantly, given the multiple interactions between two individuals engaged in co-parenting, and in line with previous empirical evidence concerning behavioral influences, we hypothesized that comprehensive, readily available attachment scripts in the co-parent would increase the chances that the focus parent’s caregiving representations would be balanced, and moderate the links from the parent’s classification with respect to attachment representation to his/her state of mind with respect to caregiving. The following hypotheses (H) were explored:

H1a: Classifications with respect to attachment and caregiving, respectively, will converge.

H1b: The co-parent’s attachment scriptedness will make a significant moderating contribution in the link between the parent’s attachment and caregiving representations.

Furthermore, we expected feelings of parental guilt to be rooted in childhood experiences of a guilt-inducing parent and be associated with enmeshed/preoccupied attachment organization. Along similar lines, a caregiver’s feelings of being rejected by the child were expected to be rooted in childhood experiences of rejection by one’s parents and associated with dismissing attachment organization.

H2: Idealization, derogation, and preoccupied anger in the parent’s caregiving representation will differ consistently based on the parent’s classification with respect to attachment.

H3: Feelings of parental guilt will be significantly higher among parents classified as enmeshed/preoccupied with respect to attachment.

H4: Feelings of being rejected by the child will be significantly higher among parents classified as dismissive with respect to attachment.

Turning to gender differences, based on previous literature, we expected more rejecting and neglecting and less loving and role reversing parental behaviors in fathers, as derived from their caregiving representations.

H5: Fathers will describe their parental caregiving as less loving, less role-reversing, more rejecting, and more neglecting than mothers will.

Method
Participants

Participants volunteered in response to an advertisement in local media of a study focusing on parental thoughts and feelings. Only biological parents of one or more two-to-nine year old children, who lived with their children at least 50% of the time and had relationships to their
own parents were included, on condition that the child’s other parent (in the present study referred to as the “co-parent”) also agreed to participate. Parents of twins and of children with chronic serious medical conditions were excluded. Single parents and parents with a same-gendered co-parent were also excluded. In total, 84 parent couples were recruited. For the purposes of the study, in half of these couples the father was the prime target, with the mother as co-parent, and in half the mother was the prime target, with the father as co-parent. Complete data were obtained from 77 couples: 36 fathers and co-parent mothers, and 41 mothers and co-parent fathers. The reason given for incomplete participation was time pressure experienced by the parent or the co-parent.

Compared to mothers, fathers were older ($F_{(1, 77)} = 24.48, p < .0001$) and had longer formal education ($F_{(1, 77)} = 4.04, p < .05$). Education length for both fathers and mothers (14.5 and 13.5 years, respectively) corresponds to two to three post-high-school years of college education or trade training: 24 mothers and 26 fathers (58.5% and 72.2%, respectively) had post-high-school education, suggesting high education levels among participants (compared to the 41% rate in the general population). Fathers were primarily full-time employed (88.5%), mothers were full-time (63%) or part-time (22%) employed, or studying (9.8%). Only one mother (2.4%) and two fathers (5.6%) were unemployed, significantly lower proportion than for the entire population at the time of recruitment (ca 8%, http://www.statistikdatabasen.scb.se). In addition to age and years of formal education, there were no other demographic differences between mothers and fathers. Not surprisingly, participant age correlated with years of formal education, number of children and age of oldest child; number of children correlated with age of oldest child (Table 1).

Half (50.6%) of the participants (18 fathers/23 mothers) had one child, 44% (18 fathers/15 mothers) had two children. Nine mothers (21.9%) and six fathers (16.6%) were separated/divorced from the child’s other parent, an overall proportion (19.5%) consistent with indicators extracted from Swedish national statistics (http://www.statistikdatabasen.scb.se) indicating that about 19.4% of 2- to 9-year-old children have separated/divorced parents. In all these cases, children spent approximately equal number of nights per month with each parent, under arrangements of shared physical custody. Parents represented predominantly a middle-class socioeconomic background.

**Measures**

Participating fathers and mothers were interviewed with the AAI (George et al., 1984/1996) and the Parental Caregiving and Attachment Interview (P-CAI: Bengtsson & Psouni, 2008; Table 1.

Table 1. Participant characteristics and association between background variables.

|                | Fathers (n = 36) | Mothers (n = 41) | Total (N = 77) | Pearson correlation $r_{(77)}$ |
|----------------|------------------|------------------|---------------|--------------------------------|
|                | $M$    | $SD$  | $M$    | $SD$  | $M$    | $SD$  | Age  | Educ | # children |
| Age            | 37.06  | 5.05  | 31.54  | 4.85  | 34.12  | 5.64  |      |      |            |
| Education      | 14.54  | 2.54  | 13.52  | 1.88  | 14.00  | 2.26  | .38**|      |            |
| # children     | 1.53   | .56   | 1.51   | .64   | 1.52   | .60   | .26* | .03  | 1          |
| Child age      | 5.53   | 2.40  | 4.58   | 2.45  | 5.03   | 2.46  | .51***| .08  | .49***     |

# children = number of children; Child age = age of the parent’s oldest child (child focused on when carrying out the AAI).

* $p < .05$, ** $p < .001$, *** $p < .0001$. 

ATTACHMENT & HUMAN DEVELOPMENT 491
Psouni & Bengtsson, 2015), focusing on their oldest child (\(M_{\text{age\ child}} = 5.0\) years, SD = 2.5), and submitted background information (age, education, relational and employment status, number of children and their ages, family life arrangements). Their co-parents completed the Attachment Script Assessment (ASA: Waters & Rodrigues, 2008).

**Adult Attachment Interview**

The AAI assesses present state of mind regarding early attachment experiences such as separations, losses, threats. Besides narrating specific memories, participants are asked to reflect on the impact of these experiences on their adult personalities. Interview transcripts were coded following the AAI coding system (Main, Goldwyn, & Hesse, 2002), applying 9-point rating scales to assess probable experiences with attachment figures and overall current state of mind with respect to attachment. Experience scales reflect the extent to which the participant’s attachment figure’s behavior was, in the coder’s opinion, loving, rejecting, involving, neglecting, or pressing for achievement. State of mind scales include idealization, preoccupying anger toward parents, derogation of attachment, insistence upon lack of recall, fear of loss, passivity of discourse, metacognitive thinking, unresolved loss/abuse, coherence of transcript, and coherence of mind. Transcripts were also classified according to the AAI classification system (Main et al., 2002) into Autonomous (F: coherent descriptions of experiences with parents, valuing relationships and understanding own role in these relationships), Dismissing (Ds: less reflecting, tending to dismiss negative experiences through cognitive deactivation such as repeatedly blocking discussion of childhood experiences by pleading poor recall; idealized or normalized – uncorroborated by concrete illustrations – descriptions of relationships to parents), Preoccupied (E: incoherent, confused or contradictory narratives, angry or passive preoccupation with relationships to parents). An Unresolved (U) classification was assigned if there was significant disorganization in thinking or discourse when discussing experiences of loss or trauma. AAI classifications have high test–retest reliability and discriminant validity and are independent of interviewer (see Bakermans-Kranenburg & van IJzendoorn, 1993; Hesse, 2008).

AAI transcripts (n = 77) were coded blind to participant identity and by a qualified, AAI-reliable coder.\(^2\) Interrater reliability with an independent AAI-reliable\(^3\) coder on 37 of 77 transcripts ranged for mother description scales between .86/pressure to achieve and .94/involving, for father description scales between .84/involving and .91/loving, for state of mind scales between .74/passivity of discourse and .98/derogation. The 4-way coding agreement was 93% (\(Kappa = .88, p < .0001\)).

**Parental Caregiving and Attachment Interview**

The P-CAI focuses on parents’ descriptions of their caregiving behaviors, and their overarching state of mind regarding the child’s attachment experiences, including not only the participant’s own but also the co-parent’s relationship to the child. Parents are asked to describe their relationship with their child and recite incidents to illustrate those descriptions, eliciting information on everyday parental behaviors, thoughts, and feelings when the child is upset, hurt, ill, and during separations and losses. Similarly, they describe (their version of) the co-parent’s relationship with the child, reciting illustrative incidents. Parents are also asked about changes over time in their, and the
co-parent’s relationships with their child, and are probed to evaluate how their own and the co-parent’s caregiving behaviors influence the child. Thus, the interview narrative comprises both recounted parental behavior and the parent’s current information processing style. Importantly, the P-CAI also includes questions that focus on the parent’s own needs and feelings, for instance “is there something in your experiences as parent to X so far, that you think might be holding your development back, might have a negative effect on the way you are experiencing yourself?”

We coded P-CAI transcripts on 9-point scales analogous to those used in the AAI, assessing parents’ probable caregiving behavior toward their child (behavior scales), and their current state of mind with respect to caregiving (state of mind scales). Behavior scales were also rated for the child’s other parent (Psouni & Bengtsson, 2015). Regarding state of mind: while the AAI provides one scale for rating preoccupying anger toward parents, three scales were rated in P-CAI, to address the parent’s current (a) preoccupying anger toward the child, (b) anger toward the other parent who shares responsibility for the child, and (c) feelings of guilt currently involving or preoccupying the parent (operational definitions in Bengtsson & Psouni, 2008). We also rated P-CAI transcripts concerning the parents’ preoccupying feelings of rejection by the child. A score of 1 was defined as “no expressions of preoccupying feelings of being rejected by the child”, reflecting parents who may describe experiences of their child preferring the company or confidence of someone else than themselves but who activate humor and/or give developmentally appropriate explanations for these experiences, while maintaining a positive attitude toward the child. A score of 9 was defined as “extreme preoccupying feelings of being rejected by the child” and would be assigned where strong experiences of having felt/feeling rejected by the child are recounted while the parent is unable to gain and maintain a psychological distance from them. Finally, while the AAI includes a scale for idealization of the parent, in P-CAI two different scales are rated, one for idealization of relationship to the child, including representations of the child or of oneself as parent, and one for idealization of partner as parent.

P-CAI transcripts were classified as Autonomous (the relationship to the child is cherished and the account is balanced, plausible and coherent), Dismissing (the parent’s caregiving is dismissing and her/his account characterized by cognitive deactivation in the form of repression of specific memories, idealization of the relationship or normalization), or Preoccupied (the parent’s caregiving is involving, her/his account characterized by deficient control of thoughts and feelings such as anger, guilt, remorse, passivity, and/or there is an enmeshed preoccupation with negative autobiographic memory), or Disorganized (the parent’s caregiving representation contains elements which undermine sensitive parenting, posing potential risks for the child’s psychological well-being and/or safety). All P-CAI transcripts were coded by the author (AAI reliable) and a fresh coder. Interrater reliability was .74 for probable caregiving behavior scales (range .65/involving – .77/neglecting), and .72 for state of mind scales (range .63/idealization of partner – .80/idealization of relation to child). The 4-way (Autonomous, Dismissive, Preoccupied, Disorganized) classification agreement was 82% (Kappa = .62, p< .0001).

Attachment security in the co-parent: Attachment Script Assessment
We used a word prompted narrative-based method for assessing the co-parents’ attachment scripts. The ASA (Waters & Rodrigues, 2008) asks participants to create stories
prompted by six titles, four probing secure base interactions, in two stories between parent and child (Baby’s Morning, The Doctor’s Office) and in two between romantic partners (Jane and Bob’s Camping Trip, The Accident), and two serving as controls (Trip to Park, An Afternoon Shopping). For each title, the word outline triggers stories with attachment-related content of various qualities. Story titles were counterbalanced for order according to instructions for administration (Waters & Rodrigues, 2008). The ASA was translated to Swedish by a bilingual English/Swedish speaker and back-translated for accuracy. For piloting, 24 parents created stories and gave feedback on the prompt words and instructions.

ASA stories were scored on a 7-point scale (Waters & Rodrigues, 2008). A score of “7” indicates elaborate descriptions of interactions between the main characters, characterized by sensitivity and responsiveness to psychological states, most likely including a crisis and its resolution, while scores of “6” and “5” indicate lesser degree of the same features. Stories with minimal elements of the Secure Base Script are scored as “4”. Stories focused on actions or events, with no mention of emotional states or interactions, are scored as “3”. A score of “2” denotes very limited descriptions of interactions where only one character’s perspective is taken into account. No distressing instance is included, or a crisis is introduced but not resolved. Distinctively odd-content stories receive a score of “1”. Coding was done according to instructions by Waters and Rodrigues (2008) by two coders fully trained in the protocol administration and coding. Inter-rater reliability was .90 (Baby’s Morning), .91 (At the doctor’s office), .80 (Jane and Bob’s Camping Trip) and .95 (The Accident). Intra-class reliability (average measures) for the 4 story scores was $r = .89$ ($p < .0001$). Thus, an average total score was produced, reflecting the amount of scripted, secure base knowledge present in co-parents’ stories.

**Procedure**

Participants were interviewed individually during two home visits, by interviewers thoroughly familiar with the administration, content and general scoring principles of the instruments, so that they could adhere to test protocols while maintaining a conversation-like, empathic style. During home-visit one, participants completed the sheet on background information and one interview (AAI or P-CAI, counterbalanced for order). The second interview was administered during home-visit two, two-to-four weeks later. The AAI and P-CAI interviews lasted around 70 min each (range 45–170 min). The focus child’s other parent (co-parent) completed the ASA during home-visit one or via Skype. There were no differences in story length or obtained scriptedness scores between the two groups. As compensation for their participation, interviewed parents and co-parents received gifts (value 10 Euro).

**Data analytic plan**

For hypothesis H1a, using categorical data, the cross-tabulation of parents’ attachment (AAI) and caregiving (P-CAI) 3-way classifications was examined for the entire sample ($N = 77$), and for fathers ($n = 36$) and mothers ($n = 41$) separately. In line with empirical evidence that the underlying structure of mental representations in adulthood may be better understood as a continuous, rather than a taxonomic, model (Fraley & Roisman, 2014), we then combined categorical (classification) and continuous (subscale) variables, allowing the representational variation among individuals within classifications to inform
the analysis (Alexandrov et al., 2005; Di Folco et al., 2017; Psouni & Apetroaia, 2014). Addressing hypothesis H1b, logistic regression modeling was used to estimate prediction of secure (P-CAI/F) caregiving classification, as opposed to insecure (P-CAI/D and P-CAI/E). Since the overall classification concordance between the parents’ current attachment and caregiving representational systems was likely to be high, causing collinearity, continuous subscales from the AAI, representing the parents’ attachment experiences and state of mind with respect to their mother and father, respectively, were selected for representing the parent’s attachment system. Co-parent attachment (ASA-scriptedness) was entered in a separate step. Parent gender was also entered, in a final step.

The remaining hypotheses were tested by two multivariate analyses of variance (MANOVA) with the parent’s current attachment representation (AAI-classification) and gender as grouping variables, maintaining co-parent attachment (ASA-scriptedness) as covariate. To address H2-H4, the dependent variables in the first model were the continuous P-CAI variables regarding feeling rejected by the child, idealization, anger and derogative states of mind in fathers’ and mothers’ caregiving representations. For H5, the dependent variables were the mothers’ and fathers’ probable loving, rejecting, neglecting, and involving caregiving behaviors as revealed by continuous P-CAI variables.

**Results**

**Descriptive statistics: Classification distributions of representations of attachment (AAI) and caregiving (P-CAI)**

We restricted analysis to the three major AAI classifications (Autonomous, Dismissive and Preoccupied) since the examination of unresolved states of mind with respect to attachment, and how these states of mind may be related to later caregiving behaviors and thinking, was beyond the scope of this paper. Replacing the 10 AAI-Unresolved protocols with secondary classifications resulted in 46 parents (59.7%) classified as Autonomous, consistent with the van IJzendoorn and Bakermans-Kranenburg (1996) norms presented for the AAI (58% base rate). Seventeen parents (22.1%) were classified as Preoccupied and 14 (18.2%) as Dismissive. On the P-CAI, 50 parents were classified as Autonomous (64.9%), 16 as Dismissive (20.8%) and 11 as Preoccupied (14.3%). There were no assignments to the Disorganized category. Classification distributions did not differ for fathers, as compared to mothers, neither with respect to the AAI (Likelihood exact ratio $G(2, 1) = 1.4, p = .49$) nor regarding the P-CAI (Likelihood exact ratio $G(2, 1) = 2.4, p = .31$).

**H1a: Parents’ attachment (AAI) and caregiving (P-CAI) classifications will converge.**

Cross-tabulation of each parent’s attachment (AAI) and caregiving (P-CAI) classifications (Table 2) revealed strong concordance (fathers’ Likelihood exact ratio $G(4, 1) = 30.55, p< .0001$, $Kappa = .61$, $p< .0001$; mothers’ Likelihood exact ratio $G(4, 1) = 25.4, p < .0001$, $Kappa = .58$, $p< .0001$). Prediction of P-CAI classification from AAI classification resulted in 77.8% exact agreement for fathers, 78% exact agreement for mothers, and 77.9% exact agreement for the entire sample (86% for Autonomous, 72.7% for Preoccupied and 56.2% for Dismissive).
H1b: Co-parent’s attachment scriptedness contributes to the prediction of secure caregiving (P-CAI) classification from the parent’s attachment representations (AAI).

Stepwise logistic regression was performed on P-CAI classifications dichotomized, insecure (Dismissive/Preoccupied) versus secure (Autonomous). Preliminary analysis to assess potential influences from background variables (parent age, years of education, number of children, age of focus child, relational status) revealed that the parent’s years of education were associated with her/his caregiving representation classification (Wald = 5.21, p = .02), with more years of education slightly reducing the odds of an Autonomous classification with respect to parental caregiving. This variable was controlled for in subsequent analysis (entered as step 1). For prediction of secure caregiving classification (P-CAI/F) we thus entered, in step 1, years of education and the parent’s probable loving and rejecting experiences with mother and father, respectively (Table 3). The only significant predictor was probable loving experiences with the mother (Wald = 8.97, p = .003). Notably, years of education made no significant contribution to the final predictive model. The co-parent’s attachment scriptedness (ASA-score), with high scores indicating a coherent description of sensitive and responsive parenting, entered in a second step significantly improved prediction of secure caregiving, which classified 84.2% of the cases correctly. Parent gender, entered in a third step, made no contribution, indicating that parent gender is not implicated in, and does not differentiate the prediction of, overall quality of caregiving representation (P-CAI) (H5). In the final model (Table 3), probable loving experiences with their mothers (AAI) significantly increased, and probable experiences of rejection by their fathers (AAI) significantly reduced, parents’ odds of being classified as having Autonomous caregiving representations.

| Step statistics | Final model |
|-----------------|-------------|
| Step | $\chi^2$ | $R^2$ | Predictors | B (SE) | OR | 95% CI (OR) |
| 1 | 41.73*** | .42 | Education (years) | -.18 (.31) | .83 | .45–1.53 |
| | | | Loving experiences, mother (AAI) | 1.45 (.57) | 4.26** | 1.40–12.96 |
| | | | Rejecting experiences, mother (AAI) | .48 (.32) | 1.62 | .86–3.04 |
| | | | Loving experiences, father (AAI) | -.07 (.40) | .93 | .43–2.03 |
| | | | Rejecting experiences, father (AAI) | -.62 (.27) | .54* | .31–.93 |
| | | | Co-parent attachment (ASA-script) | 1.36 (.46) | 3.92** | 1.59–9.64 |
| | | | Gender (ref = mother) | 1.06 (.89) | 2.33 | .44–12.39 |

OR = Odds Ratio. $R^2$ here is the Cox & Snell $R$ square.

*p < .05, **p < .01, p < .0001.
H2–H4: Regarding states of mind with respect to parental caregiving

To address hypotheses 2–4 concerning links between specific state of mind dimensions of the parent’s caregiving representation and his/her classification with respect to attachment, MANOVA was carried out with P-CAI state of mind subscales as dependent variables: idealization of the child and co-parent, respectively, derogation of the relationship to the child, anger towards the child and co-parent, respectively, parental guilt, and preoccupied feelings of rejection. Parent AAI-classification (Dismissive vs. Preoccupied vs. Autonomous) and gender (mother vs. father) were grouping variables. In addition to the expected main multivariate effect of AAI classification (Wilks’Λ, $F_{(14, 128)} = 7.28, p < .0001, \eta^2 = .445$), the analysis revealed a multivariate effect of parent gender (Wilks’Λ, $F_{(7, 64)} = 2.65, p = .018, \eta^2 = .225$), and a multivariate AAI-classification X gender interaction effect (Wilks’Λ, $F_{(14, 128)} = 2.74, p = .001, \eta^2 = .231$). Among parents with Preoccupied (AAI/E) current attachment representations, there was more preoccupying anger toward the co-parent among mothers, compared to fathers, $F_{(1, 71)} = 4.88, p = .03, \eta^2 = .06$ (Mfathers = 2.10, SD = 1.41, Mmothers = 2.37, SD = 1.87) (Figure 1(a)). The multivariate effect of co-parent attachment scriptedness (ASA) as covariate was not statistically significant in this analysis (Wilks’Λ, $F_{(7, 64)} = 1.87, p = .09, \eta^2 = .169$), but a univariate effect on parental guilt was found, with more elaborate and readily available attachment scripts in the co-parent predicting lower levels of preoccupying guilt in the parent. Notably, the gender difference in preoccupying anger towards the co-parent was no longer significant.

Univariate effects of AAI classification, and subsequent post-hoc comparisons, are presented in Table 4. As hypothesized (H2), there was significantly more idealization and derogation of the relationship to the child among parents classified as Dismissive with respect to attachment (AAI/D), and significantly more anger toward the child but also anger toward the co-parent among parents classified as Preoccupied (AAI/E). As hypothesized (H3), parental guilt was highest among parents classified as Preoccupied with respect to attachment (AAI/E) but also higher for parents dismissive with respect to attachment (AAI/Ds), compared to autonomous (AAI/F) parents. Also confirming our hypothesis (H4), preoccupying feelings of being rejected by the child were highest among parents whose current attachment representations were classified as Dismissive (AAI/Ds).

H5: Fathers are more rejecting and neglecting, and less loving.

To address hypothesis 5 concerning differences between mothers’ and fathers’ probable caregiving behaviors as revealed in their caregiving representations, MANOVA was carried out with P-CAI probable parenting behaviors loving, rejecting, neglecting and involving (role-reversing) as dependent variables, parent gender (father vs. mother) and parent AAI-classification (Dismissive vs. Preoccupied vs. Autonomous) as grouping variables. Also here, co-parent attachment scriptedness (ASA) was entered as covariate. Besides the expected main multivariate effect of AAI classification (Wilks’Λ, $F_{(8, 134)} = 7.72, p < .0001, \eta^2 = .316$) on caregiving behaviors, the analysis did reveal a multivariate effect of parent gender (Wilks’Λ, $F_{(4, 67)} = 3.26, p = .017, \eta^2 = .163$), and also a multivariate gender X AAI-classification interaction effect (Wilks’Λ, $F_{(8, 134)} = 2.57, p = .012, \eta^2 = .133$).
The univariate tests uncovered that both these effects concerned differences, between fathers and mothers, in probable parental rejecting behavior ($M_{\text{fathers}} = 2.42$, $SD = 1.92$, $M_{\text{mothers}} = 1.74$, $SD = 1.28$). Among parents with Dismissive (AAI/Ds) current attachment representations, there were more rejecting (Figure 1(b)) and more neglecting (Figure 1(c)) behaviors described by fathers in the P-CAI interview, compared to mothers. The multivariate effect of co-parent attachment scriptedness (ASA) was also significant ($Wilks’ \Lambda, F(4, 67) = 4.03, p = .006, \eta^2 = .194$). Subsequent univariate analysis revealed effects on probable loving ($F(1, 70) = 15.95, p < .0001, \eta^2 = .186$) and rejecting ($F(1, 70) = 6.12, p = .015, \eta^2 = .080$), but not on neglecting and involving behaviors. Thus, elaborate and readily available attachment scripts in the co-parent are associated with more evidence of probable loving and less evidence of probable rejecting caregiving behaviors in the interviewed fathers’ and mothers’ caregiving representations.

Figure 1. Significant Gender X Attachment classification (AAI) regarding Rejecting and Neglecting caregiving (probable behavior scales), and Anger toward co-parent (state of mind scale), coded from the P-CAI interview. Solid lines = father data, dashed lines = mother data.
Table 5 presents a summary of the main effects of parent gender and parent attachment classification, respectively, and interactions between the two, as well as effects of co-parent attachment scriptedness, from the above analyses.

In a final, exploratory round, and drawing upon the finding that probable experiences of a rejecting father were negatively associated to parents’ chances of receiving an Autonomous classification with respect to their own caregiving representations (P-CAI/F), the possibility of differences in mothers’ and fathers’ childhood experiences of rejection by their fathers was tested. ANOVA with parent gender (male vs. female) and P-CAI classification (Autonomous vs. Dismissive vs. Preoccupied) as grouping variables, and the AAI subscale coding probable rejection by the father as dependent variable was carried out. In addition to a main effect of parent gender ($F_{(1, 70)} = 8.81, p < .005, \eta^2 = .11$) indicating that, compared to mothers, fathers’ adult attachment representations (AAI) included significantly

Table 5. Summary of univariate effects.

| P-CAI state of mind scales | $F_{(2, 71)}$ | $\eta^2$ | Mean scores on AAI subscales | Post Hoc |
|---------------------------|---------------|----------|-----------------------------|----------|
| Idealizing relationship to the child | 17.61*** | .33 | 4.07 3.21 1.75 | DS-F*** E-F*** |
| Idealizing the co-parent | 1.76 | | 2.14 2.03 1.58 | |
| Derogation of relationship to child | 12.89*** | .27 | 2.04 1.47 1.09 | DS-F*** E-F*** E-Ds* |
| Anger toward the child | 13.81*** | .28 | 2.14 2.68 1.24 | DS-F*** E-F*** E-Ds* |
| Anger toward the co-parent | 20.10*** | .36 | 2.43 3.82 1.60 | E-F* |
| Parental guilt | 7.37** | .17 | 2.89 3.03 1.75 | |
| Feeling rejected by the child | 8.41** | .19 | 4.18 2.15 2.16 | |

Ds = Dismissive (AAI/Ds), E = Preoccupied (AAI/E) and F = Autonomous (AAI/F).

*p < .05, **p < .01, ***p < .0001.
higher amounts of rejection by their own fathers \( (M_{\text{father}} = 3.57, \ SD = 2.29; \ M_{\text{mother}} = 2.61, \ SD = 1.89) \), the analysis revealed a tendency of a P-CAI classification X gender interaction \( (F_{(2, \ 70)} = 2.92, \ p < .06, \ \eta^2 = .09) \). Among parents whose caregiving representations were classified as Dismissive or Preoccupied with respect to parental caregiving, fathers reported childhood experiences of rejection by their fathers to a larger extent than mothers did (Figure 1(d)).

**Discussion**

The purpose of the present study was to add to knowledge about fathers’ caregiving representations. For the first time, both fathers’ and mothers’ representations of caregiving were examined through extensive interviews, and gender differences and links to the parents’ own and their co-parents’ current attachment representations were investigated. On the whole, our results suggest more similarity than difference between mothers’ and fathers’ caregiving representations. However, confirming our hypotheses, there was more evidence of probable rejecting and neglecting parental behaviors in fathers’ caregiving representations, compared to mothers’ caregiving representations. Importantly, co-parent attachment as indicated by elaborateness in the co-parents’ attachment scripts, increased the likelihood of a parent’s caregiving representations being classified as Autonomous. Evidence of elaborate and readily available attachment scripts in the co-parent was associated with more probable loving and less probable rejecting caregiving behaviors in the parent’s caregiving representations.

**Links between parents’ attachment and caregiving representations**

Regarding links between parents’ caregiving representations and their current attachment representations, we hypothesized that people react to their children in a manner similar to the way they reacted to their parents, since according to attachment theory the image of the parent becomes a prototype for “other”. To address this hypothesis, we examined replication in the two models, using similar methods, analog scales, and categorization systems, and found correspondence between overall classifications with respect to attachment (AAI) and caregiving (P-CAI). This finding suggests that parents’ accounts of childhood experiences with their own parents bear significant similarity to their accounts of their current experiences of their parenting relationship to their children, supporting George and Solomon’s (1999) idea that representations of caregiving are linked to representations of attachment.

Furthermore, we operationalized and assessed dimensions of the caregiving representation that capture experiences specific to the parental role and have no counterpart in the attachment representation, but may nevertheless be affected by information in that model, assuming that the child is experienced as “other” in the parent’s caregiving representation. Indeed, differences in classification with respect to attachment (AAI), were linked to robust differences in important caregiving state of mind dimensions, including parenting-specific dimensions such as feelings of being rejected by the child, preoccupying anger towards both the child and the co-parent, and preoccupying parental guilt. Consistent with prior findings (Aber et al., 1999; Mayseless & Scharf, 2006; Slade et al., 1999), parents with Autonomous attachment representations had the most realistic, balanced, and coherent caregiving representations. Parents classified
as Preoccupied (AAI/E), who often showed elevated levels of preoccupying anger towards their parents, showed the highest level of preoccupying anger also towards their child, in line with findings by Mayseless and Scharf (2006) that Preoccupied mothers of adolescent sons expressed higher levels of uncontained anger in their caregiving representations, compared to Dismissive mothers. Interestingly, in striking contrast to these findings, Slade et al. (1999) found, in a study of mothers of male toddlers, significantly higher levels of anger in caregiving representations of Dismissive, compared to Autonomous or Preoccupied mothers. In our study, anger toward the child was only marginally lower among parents with Dismissive (AAI/Ds), compared to those with Preoccupied attachment representations (AAI/E). On the other hand, the caregiving representations of parents with dismissive attachment representations were characterized by more idealization of one’s relationship to the child. Thus, the anger that is possibly generated in the early interactions between these parents and their children may not be apparent in their later caregiving representations because of a tendency to produce idealized and restricted descriptions of their experiences as caregivers. Consistent with other research (Mayseless & Scharf, 2006), parents with Preoccupied attachment classification described high levels of uncontained negative emotions including not only anger but also guilt. Excessive feelings of parental guilt express an over-involvement in the relationship with the child that is perhaps more congruent with the aim of protecting the child than is excessive anger.

Although parents with dismissive attachment representations (AAI/Ds) tended to idealize their relationships to their children, we also found that, compared to Autonomous (AAI/F) or Preoccupied (AAI/E) parents, they expressed stronger preoccupation with feelings of being rejected by their child. This is in line with prior findings that Dismissive parents have negative perceptions of their child and themselves as caregivers (George & Solomon, 1996), and that idealizing the relationship is one way to cope with the guilt for feeling that way. It also supports the idea that the parents may experience their children in ways similar to how they experienced their caregivers. Dismissive parents in that sense generalize feelings of being rejected from their attachment representation to their caregiving representation. In the long term, preoccupying feelings of being rejected by the child may serve as justification for rejecting the child, the behavior being perceived by the parent as an unavoidable self-protection.

**Differences between mothers and fathers**

The caregiving representations of fathers and mothers in the present study were more similar than different. No difference in distribution of classifications with respect to caregiving (P-CAI) emerged, and parent gender made no contribution as predictor of autonomous caregiving classification (P-CAI/F). As would be expected based on previous research (Madsen et al., 2007; Scharf & Mayseless, 2011), an autonomous caregiving classification (P-CAI) was more likely for both fathers and mothers, in the presence of parents’ childhood experiences of maternal love, while amount of paternal love as rated from the mothers’ and fathers’ AAI interviews had no predictive value. As the model was essentially unchanged by the inclusion of parental gender as potential predictor, the present data offer no grounds for a differentiation between fathers and mothers in these relationships.
Notably, both mothers’ and fathers’ capacity to respond sensitively to their children’s needs and emotional states, while at the same time providing a balanced and coherent view of themselves as parents and their relationships to their children, was predicted by absence of childhood experiences of rejection by their own fathers (while experiences of rejection by the mother had no predictive value). Overall, more evidence of paternal rejection was found among fathers, compared to mothers. However, the mothers and fathers whose caregiving representations received Autonomous classifications reported similar (low) amounts of paternal rejection during their childhood, while reported levels of paternal rejection were significantly higher among fathers with non-Autonomous (both Dismissive and Preoccupied) caregiving classifications, compared to mothers with non-Autonomous caregiving classifications. Seen together, these findings indicate, consistently with previous findings (Sharabany et al., 2006), that experiences of rejection by their own fathers are particularly harmful to fathers’ parenting.

The few other gender differences that did emerge suggest higher ratings on rejecting and neglecting probable caregiving behaviors for fathers, compared to mothers, in line with our hypotheses and indications from previous research (McFarland et al., 2012; Putnick et al., 2012). However, these effects were driven by the higher levels of rejecting and neglecting behaviors specifically among fathers classified as Dismissive with respect to attachment (AAI/Ds), as compared to mothers with the same attachment classification. Based on rates from the parents’ P-CAI interviews, the present data did not corroborate previous evidence of lower levels of role-reversal in fathers as compared to mothers (Macfie et al., 2005; Maseless et al., 2004), or of lower levels of loving behaviors as self-reported by fathers compared to mothers (Putnick et al., 2012). In sum, the gender differences in parental caregiving that were found concerned rejecting and neglecting behaviors with children, in parents with Dismissive working models of attachment.

The powerful role of the co-parent’s attachment security

In contrast to the modest contribution of parent gender to explaining variance in caregiving, there was clear evidence of the influence of parental caregiving representations in the present study, confirming previous findings (e.g., Cohn, Cowan, Cowan, & Pearson, 1992). Co-parent attachment security, here operationalized as evidence of scripted knowledge of attachment security (ASA-scriptedness), was a significant predictor of parental caregiving classified as autonomous (P-CAI/F), raising the classification accuracy of the logistic model from 79% to 87%, after accounting for possible common variance with the interviewed parent’s own attachment-related variables. Furthermore, co-parent attachment security was associated with enhanced positive caregiving in the parent, as it was associated with more loving and less rejecting behavior, both derived from the caregiving interviews (P-CAI). Thus, parents are more likely to show autonomous, positive caregiving when their co-parents demonstrate comprehensive, readily available attachment scripts (ASA) indicating secure states of mind.

Co-parent attachment security was also associated with less preoccupying anger toward the child and less preoccupying parental guilt in the interviewed parent’s caregiving representation. In fact, parental guilt was independent of parent attachment representation (AAI) and gender. Thus, feelings of guilt in relation to one’s parenting
may constitute a component of the parental caregiving representation that is more closely related to positive co-parenting than to the parent’s attachment representation, illustrating how the caregiving representation may be flexibly influenced by the content of interactions with co-parents, as has been suggested in the literature (Bengtsson & Psouni, 2008; Cowan & Cowan, 2000; Mayseless, 2006).

Taken together, the effects of co-parent attachment security on the overall quality (P-CAI classification) and on specific aspects (distinct scales) on the other parent’s caregiving representation support its hypothesized moderating role. The sample size of the study did not allow for a stringent test of gender-specific effects of co-parent attachment security, but no indication of such effect was seen in the logistic regression model. Evidence from past decades that fathers construed parental caregiving as work to be done mainly through co-parenting with the mother (Stueve & Pleck, 2001), was therefore not corroborated here, suggesting more egalitarian parenting roles between fathers and mothers. This would be in line with the presumed characteristics of this particular sample, as Sweden ranks high with respect to egalitarian parenting roles in international comparisons (Putnick et al., 2012).

**Limitations**

The present study’s limitations call for careful interpretation of the findings and suggest a need for future research. First, convergence in individual attachment and caregiving classifications is likely to be influenced by the individual’s linguistic style – as the measures used to assess attachment and caregiving representations, respectively, are both evaluations based on content and style of discourse in response to a similar type of interview. Second, the basic assumption of this research, that caregiving representations affect parental behavior, needs to be further corroborated. This is particularly true for dimensions in the caregiving representation such as parental guilt, preoccupying feelings of being rejected by the child, and anger toward the partner, as these are relatively unexplored constructs in research with both mothers and fathers.

Importantly, although co-parent pairs were recruited in the present study, the links between the parent’s representations of attachment and representations of caregiving were investigated only in one parent in each pair (in approximately half of the cases the father, and half of the cases the mother) while the other parent (the co-parent) was included through attachment security based on a word-prompted, narrative-based measure of attachment scripts. A symmetrical couple design where attachment and parental caregiving representations, respectively, would be assessed in both co-parents in each pair would potentially further clarify the complex interactions between co-parents’ attachment representations and caregiving representation.

Finally, the study was based on a self-selected community sample. The absence of Disorganized classifications with respect to caregiving (despite significant evidence of loss/trauma in the parents’ attachment representations) suggests a group of participants that were in general well-adjusted, which is further corroborated by the low levels of unemployment and relatively long education among participants. The high employment and high education bias among participating parents, and the lack of information concerning ethnic background, restrict the generalizability of the findings. In order to establish specific trajectories for the development of parental caregiving representations at different levels of awareness in relation to previous attachment experiences,
representations of caregiving ought to be studied longitudinally, in larger groups, and in risk-groups for which a better understanding of the parent’s thinking that underlies her/his parental behavior may be used for targeted intervention.

Conclusions

Despite the fact that social norms have maintained, for a long time, different parenting profiles for mothers and fathers, respectively, our findings point to more similarity than difference in mothers’ and fathers’ caregiving representations in this sample of parents. Caregiving representations are instead strongly linked to the parent’s current attachment representation, and a mechanism underlying the link between the adult attachment and caregiving representational systems may be that the child becomes the “other” in the parent’s caregiving representation. Significant and specific influences of co-parents’ attachment representations on both fathers’ and mothers’ own caregiving representations are demonstrated, suggesting that quality of co-parenting ought to be included in future studies of parents’ attachment and caregiving representations – and in interventions with child development outcomes as targets.

Our results suggest that an equally informative picture of coherence and thought defences in processing relationships’ information can be obtained with the P-CAI when focusing on the parent’s current relationship with the child, as with the AAI when the focus is on the parent’s past relationships with her own parents. Finally, while methods used to assess different features of parental caregiving have been discussed as largely adapted to mothers (Grossmann et al., 2002; Lewis & Lamb, 2003), the P-CAI appears to give rise to information that is of relevance to both genders.

Notes

1. Because the interview’s previous acronym (CAI: Bengtsson & Psouni, 2008) may easily be confused with the Child Attachment Interview (CAI/Shmueli-Goetz, Target, Fonagy, & Datta, 2008), or the Couple Attachment Interview (CAI/Silver & Cohn, 1992; in Alexandrov et al., 2005) we use Parental Caregiving and Attachment Interview (P-CAI) instead.
2. Scandinavian Institute, Anders Broberg & Tord Ivarsson 2011, reliability 2012.
3. London Institute, Mary Main & Erik Hesse 1996, reliability 1998.

Acknowledgments

I would like to thank all fathers and mothers who took part in this research. Thank you to Ofra Mayseless and Bob Marvin for valuable feedback during early phases of this work. Reliability coding was contributed by Hans Bengtsson (AAI) and Hedda Skyllbäck (P-CAI). The project was partly supported by the Swedish Research Council (2009-1273/Psouni) and Crafoord Foundation in Sweden (2009-1014/Psouni).

Disclosure statement

No potential conflict of interest was reported by the author.
References

Aber, J. L., Belsky, J., Slade, A., & Crnic, K. (1999). Stability and change in mothers’ representations of their relationship with their toddlers. Developmental Psychology, 35, 1038–1047.

Alexandrov, E. O., Cowan, P. A., & Cowan, C. P. (2005). Couple attachment and the quality of marital relationships: Method and concept in the validation of the new couple attachment interview and coding system. Attachment & Human Development, 7(2), 123–152.

Allen, S. M., & Hawkins, A. J. (1999). Maternal gatekeeping: Mothers’ beliefs and behaviors that inhibit greater father involvement in family work. Journal of Marriage and the Family, 61, 199–212.

Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (1993). A psychometric study of the Adult Attachment Interview: Reliability and discriminant validity. Developmental Psychology, 29, 870–879.

Belsky, J., & Kelly, J. (1994). The transition to parenthood. New York: Delacorte.

Bengtsson, H., & Psouni, E. (2008). Mothers’ representations of caregiving and their adult children’s representations of attachment: Intergenerational concordance and relations to beliefs about mothering. Scandinavian Journal of Psychology, 49, 247–257.

Bigelow, A. E., MacLean, K., Proctor, J., Myatt, T., Gillis, R., & Power, M. (2010). Maternal sensitivity throughout infancy: Continuity and relation to attachment security. Infant Behavior & Development, 33(1), 50–60.

Booth-LaForce, C., Groh, A. M., Burchinal, M. R., Roisman, G. I., Owen, M. T., & Cox, M. J. (2014). Caregiving and contextual sources of continuity and change in attachment security from infancy to late adolescence. Monographs of the Society for Research in Child Development, 79, 67–84.

Bowlby, J. (1969/1982). Attachment and loss: Vol. 1. Attachment. New York: Basic.

Bowlby, J. (1973). Attachment and loss: Vol. 2: Separation. New York: Basic.

Bretherton, I. (1991). Pouring new wine into old bottles: The social self as internal working model. In M. Gunnar & L. A. Sroufe (Eds.), Minnesota symposia in child psychology: Self processes in development (pp. 1–41). Hillsdale, NJ: Erlbaum.

Bretherton, I., & Munholland, K. A. (2008). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P. R. Shaver (Eds.), Handbook of attachment: Theory, research, and clinical applications (2nd ed., pp. 102–130). New York: Guilford.

Bretherton, I. (2010). Fathers in attachment theory and research: A review. Early Child Development and Care, 180(1–2), 9–23.

Cabrera, N. J., Fagan, J., Wigh, V., & Schadler, C. (2011). Influence of mother, father, and child risk on parenting and children’s cognitive and social behavior. Child Development, 82, 1985–2005.

Casey, P., Cowan, P. A., Cowan, C. P., Draper, L., Mwamba, N., & Hewison, D. (2017). Parents as partners: A UK Trial of a US Couples-based parenting intervention for at-risk low-income families. Family Process, 56(3), 589–606.

Christopher, C., Umemura, T., Mann, T., Jacobvitz, D., & Hazen, N. (2015). Marital quality over the transition to parenthood as a predictor of coparenting. Journal of Child and Family Studies, 24 (12), 3636–3651.

Cohn, D. A., Cowan, P. A., Cowan, C. P., & Pearson, J. (1992). Mothers’ and fathers’ working models of childhood attachment relationships, parenting styles, and child behavior. Development and Psychopathology, 4, 417–431.

Coppola, G., Vaughn, B. E., Cassibba, R., & Costantini, A. (2006). The attachment script representation procedure in an Italian sample: Associations with Adult Attachment Interview scales and with maternal sensitivity. Attachment & Human Development, 8, 2009–2019.

Cowan, C. P., & Cowan, P. A. (2000). When partners become parents: The big life change for couples. Mahwah, NJ: Lawrence Erlbaum.

Cowan, P. A., Cowan, C. P., Pruett, M. K., & Pruett, K. (2018). Supporting father involvement: A father-inclusive couples group approach to parenting interventions. In H. Steele & M. Steele (Eds.), Handbook of attachment-based interventions (pp. 466–491). New York, NY: Guilford Press.

Cowan, P. A., & Cowan, C. P. (2009). Couple relationships: A missing link between adult attachment and children’s outcomes. Attachment & Human Development, 11(1), 1–4.
Cowan, P. A., Cowan, C. P., & Mehta, N. (2009). Adult attachment, couple attachment, and children’s adaptation to school: An integrated attachment template and family risk model. *Attachment & Human Development, 11*(1), 29–46.

Dagan, O., & Sagi, S. A. (2018). Early attachment network with mother and father: An unsettled issue. *Child Development Perspectives*. doi:10.1111/cdep.12272

De Wolff, M., & van Uzendoorn, M. H. (1997). Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child Development, 68*(4), 571–591.

Di Folco, S., Messina, S., Zavattini, J.-C., & Psouni, E. (2017). Attachment to mother and father at transition to middle childhood. *Journal of Child and Family Studies, 26*(3), 721–733.

Esbjørn, B. H., Pedersen, S. H., Daniel, I. S. F., Hald, H. H., Holm, J. M., & Steele, H. (2013). Anxiety levels in clinically referred children and their parents: Examining the unique influence of self-reported attachment styles and interview-based reflective functioning in mothers and fathers. *British Journal of Clinical Psychology, 52*(4), 394–407.

Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science and Practice, 3*, 95–131.

Feinberg, M. E., & Kan, M. L. (2008). Establishing family foundations: Intervention effects on coparenting, parent/infant well-being, and parent–Child relations. *Journal of Family Psychology, 22*, 253–263.

Fraley, R. C., & Roisman, G. I. (2014). Categories or dimensions? A taxometric analysis of the Adult Attachment Interview. *Monographs of the Society for Research in Child Development, 79*, 36–50.

George, C., & Solomon, J. (2008). The caregiving system: A behavioral systems approach to parenting. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 833–857). New York: Guilford.

George, C., Kaplan, N., & Main, M. (1984/1996). *Adult Attachment Interview* (Unpublished manuscript). Berkeley, US: University of California.

George, C., & Solomon, J. (1996). Representational models of relationships: Links between caregiving and attachment. *Infant Mental Health Journal, 17*, 198–216.

George, C., & Solomon, J. (1999). The development of caregiving: A comparison of attachment theory and psychoanalytic approaches to mothering. *Psychoanalytic Inquiry, 19*, 618–646.

Groh, A. M., Fearon, R. P., Bakermans-Kranenburg, M. J., van Uzendoorn, M. H., Steele, R. D., & Roisman, G. I. (2014). The significance of attachment security for children’s social competence with peers: A meta-analytic study. *Attachment & Human Development, 16*(2), 103–136.

Grossmann, K., Grossmann, K. E., & Kindler, H. (2005). Early care and the roots of attachment and partnership representations: The bielefeld and regensburg longitudinal studies. In K. E. Grossmann, K. Grossmann, & E. Waters (Eds.), *Attachment from infancy to adulthood: The major longitudinal studies* (pp. 98–136). New York, NY: Guilford Publications.

Grossmann, K., Grossmann, K. E., Fremmer-Bombik, E., Kindler, H., Scheuerer-Englisch, H., & Zimmermann, P. (2002). The uniqueness of the child–father attachment relationship: Fathers’ sensitive and challenging play as the pivotal variable in a 16-year longitudinal study. *Social Development, 11*, 307–331.

Hazen, N. L., McFarland, L., Jacobvitz, D., & Boyd-Soisson, E. (2010). Fathers’ frightening behaviours and sensitivity with infants: Relations with fathers’ attachment representations, father-infant attachment, and children’s later outcomes. *Early Child Development and Care, 180*(1–2), 51–69.

Hesse, E. (2008). The Adult Attachment Interview: Protocol, method of analysis and empirical studies. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 552–598). New York: Guilford.

Howes, C., & Spieker, S. (2008). Attachment relationships in the context of multiple caregivers. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications*, 2nd ed. (pp. 317–332). New York, NY: The Guilford Press.

Kochanska, G., & Kim, S. (2013). Early attachment organization with both parents and future behavior problems: From infancy to middle childhood. *Child Development, 84*(1), 283–296.

Lewis, C., & Lamb, M. E. (2003). Fathers’ influences on children’s development: The evidence from two-parent families. *European Journal of Psychology of Education, 18*(2), 211–228.
Lucassen, N., Kok, R., Bakermans, K. M. J., Van Ijzendoorn, M. H., Jaddoe, V. W. V., Hofman, A., … Tiemeier, H. (2015). Executive functions in early childhood: The role of maternal and paternal parenting practices. *British Journal of Developmental Psychology, 33*(4), 489–505.

Lucassen, N., Thaner, A., Van Ijzendoorn, M. H., Bakermans-Kranenburg, M. J., Velling, B. L., Verhulst, F. C., Lambregtse-Van Den Berg, M. P., Thiemeier, H. (2011). The association between paternal sensitivity and infant–Father attachment security: A meta-analysis of three decades of research. *Journal of Family Psychology, 25*(6), 986–992.

Macfie, J., Houts, R. M., McElwain, N. L., & Cox, M. J. (2005). The effect of father-toddler and mother–Toddler role reversal on the development of behavior problems in kindergarten. *Social Development, 14*(3), 514–531.

Madsen, S. A., Lind, D., & Muncck, H. (2007). Men’s abilities to reflect their infants’ states of mind: Interviews with 41 new fathers on experiences of parenthood. *Nordic Psychology, 59*(2), 149–163.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), *Growing points of attachment theory and research* (pp. 66–106). Monographs of the Society for Research in Child Development, 50, 1–2, Serial no. 209. Chicago: University of Chicago Press.

Main, M., Goldwyn, R., & Hesse, E. (2002). *Classification and scoring systems for the Adult Attachment Interview* (Unpublished manuscript). Berkeley, US: University of California.

Main, M., & Weston, D. R. (1981). The quality of the toddler’s relationship to mother and to father: Related to conflict behavior and the readiness to establish new relationships. *Child Development, 52*, 932–940.

Mayseless, O., & Scharf, M. (2006). Maternal representations of parenting in adolescence and psychosocial functioning of mothers and adolescents. In O. Mayseless (Ed.), *Parenting representations: Theory, research, and clinical applications* (pp. 208–238). New York: Cambridge University Press.

Mayseless, O. (2006). Studying parenting representations as a window to parents’ internal working model of caregiving. In O. Mayseless (Ed.), *Parenting representations: Theory, research, and clinical applications* (pp. 4–40). New York: Cambridge University Press.

Mayseless, O., Bartholomew, K., Henderson, A., & Trinke, S. (2004). “I was more her mom than she was mine:” Role reversal in a community sample. *Family Relations, 53*(1), 78–86.

McFarland-Piazza, L., Hazen, N., Jacobvitz, D., & BoydSoisson, E. (2012). The development of father–Child attachment: Associations between adult attachment representations, recollections of childhood experiences and caregiving. *Early Child Development and Care, 182*(6), 701–721.

Murphy, S. E., Gallegos, M. I., Jacobvitz, D. B., & Hazen, N. L. (2017). Coparenting dynamics: Mothers’ and fathers’ differential support and involvement. *Personal Relationships, 24*(4), 917–932.

Nelson, K. (1986). *Event knowledge: Structure and function in development scripts and narratives.* Mahwah, NJ: Erlbaum.

Pazzagli, C., Delvecchio, E., Rasa, V., Mazzeschi, C., & Luyten, P. (2017). The parental reflective functioning questionnaire in mothers and fathers of school-aged children. *Journal of Child and Family Studies. doi:10.1007/s10826-017-0856-8*

Pruett, M. K., Pruett, K. D., Cowan, C. P., & Cowan, P. A. (2017). Enhancing paternal engagement in a co-parenting paradigm. *Child Development Perspectives, 11*(4), 245–250.

Psouni, E., Agebjörn, J., & Linder, H. (2017). Symptoms of depression in Swedish fathers in the postnatal period and development of a screening tool. *Scandinavian Journal of Psychology. doi:10.1111/sjop.12396*

Psouni, E., & Apetroaia, A. (2014). Measuring scripted attachment-related knowledge in middle childhood: The Secure Base Script Test. *Attachment & Human Development, 16*, 22–41.

Psouni, E., & Bengtsson, H. (2015). *Parental Caregiving and Attachment Interview (P-CAI) coding manual* (Unpublished manuscript). Lund University, Sweden.

Psouni, E., Di Folco, S., & Zavattini, G. C. (2015). Scripted secure base knowledge and its relation to perceived social acceptance and competence in early middle childhood. *Scandinavian Journal of Psychology, 56*(3), 341–348.
Putnick, D. L., Bornstein, M. H., Lansford, J. E., Chang, L., Deater-Deckard, K., Giunta, L. D., ... Bombi, A. S. (2012). Agreement in mother and father acceptance-rejection, warmth, and hostility/rejection/neglect of children across nine countries. *Cross-Cultural Research, 46*(191), 191–223.

Sagi-Schwartz, A., & Aviezer, O. (2005). Correlates of attachment to multiple caregivers in kibbutz children from birth to emerging adulthood. In K. E. Gossmann, K. Grossman, & E. Waters (Eds.), *Attachment from infancy to adulthood: The major longitudinal studies* (pp. 165–197). New York: Guilford Press.

Scharf, M., & Mayseless, O. (2011). Buds of parenting in emerging adult males: What we learned from our parents. *Journal of Adolescent Research, 26*(4), 479–505.

Schoenmaker, C., Juffer, F., van IJzendoorn, M. H., Linting, M., van der Voort, A., & Bakermans-Kranenburg, M. J. (2015). From maternal sensitivity in infancy to adult attachment representations: A longitudinal adoption study with secure base scripts. *Attachment & Human Development, 17*, 241–256.

Sharabany, R., Scher, A., & Gal-Krauz, J. (2006). Like fathers, like sons? Fathers’ attitudes to child-rearing in light of their perceived relationships with own parents, and their attachment concerns. In O. Mayseless (Ed.), *Parenting representations: Theory, research, and clinical implications* (pp. 239–261). New York, NY: Cambridge University Press.

Shmueli-Goetz, Y., Target, M., Fonagy, P., & Datta, A. (2008). The Child Attachment Interview: A psychometric study of reliability and discriminant validity. *Developmental Psychology, 44*, 939–956.

Slade, A., Belsky, J., Aber, J. L., & Phelps, J. (1999). Mothers’ representations of their relationships with their toddlers: Links to adult attachment and observed mothering. *Developmental Psychology, 35*, 611–619.

Slade, A., Grienenberger, J., Bernbach, E., Levy, D., & Locker, A. (2005). Maternal reflective functioning, attachment, and the transmission gap: A preliminary study. *Attachment & Human Development, 7*, 283–298.

Steele, H., & Steele, M. (2005). The construct of coherence as an indicator of attachment security in middle childhood: The Friends and Family Interview. In K. Kerns & R. Richardson (Eds.), *Attachment in middle childhood* (pp. 137–160). New York, NY: Guilford Press.

Steele, H., Steele, M., & Fonagy, P. (1996). Associations among attachment classification of mothers, fathers and their infants. *Child Development, 67*, 541–555.

Stueve, J. L., & Pleck, J. H. (2001). “Parenting voices”: Solo parent identity and co-parent identities in married parents’ narratives of meaningful parenting experiences. *Journal of Social and Personal Relationships, 18*(5), 691–708.

van IJzendoorn, M. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis of the predictive validity of the Adult Attachment Interview. *Psychological Bulletin, 117*, 387–403.

van IJzendoorn, M. (2005). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis of the predictive validity of the Adult Attachment Interview. *Psychological Bulletin, 117*, 387–403.

van IJzendoorn, M., & Bakermans-Kranenburg, M. (1996). Attachment representations in mothers, fathers, adolescents, and clinical groups: A meta-analytic search for normative data. *Journal of Consulting and Clinical Psychology, 64*, 8–21.

van IJzendoorn, M. H., & De Wolff, M. (1997). In search of the absent father: Meta-analysis of infant–Father attachment. *Child Development, 68*, 604–609.

Verhage, M. L., Fearon, R. P., Schuengel, C., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Madigan, S., ... Brisch, K. (2018). Examining ecological constraints on the intergenerational transmission of attachment via individual participant data meta-analysis. *Child Development*. doi:10.1111/cdev.13085

Waters, E., & Cummings, E. M. (2000). A secure base from which to explore close relationships. *Child Development, 71*, 164–172.

Waters, H. S., & Rodrigues, L. M. (2008). *Narrative assessment of adult attachment representations: The scoring of secure base script content* (Unpublished manuscript). Stony Brook, New York: State University of New York.
Williams, D. T. (2018). Parental depression and cooperative co-parenting: A longitudinal and dyadic approach. *Family Relations, 67*(2), 253–269.
Zeanah, C. H., Benoit, D., Hirschberg, L., Barton, M., & Regan, C. (1995). Mothers’ representations of their infants are concordant with infant attachment classifications. *Developmental Issues in Psychiatry & Psychology, 1*, 1–14.