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Children's Emerging Receptive, Positive Orientation toward Their Parents in the Network of Early Attachment Relationships

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Abstract

Early security plays a major role in inaugurating the child's receptive, positive orientation – a foundation for cooperative parent-child relationships and successful socialization. However, few studies have considered the association between children's attachments with both mothers and fathers and multiple aspects of children's receptive, positive orientation, or compared all four attachment groups (secure, avoidant, resistant, and disorganized). In 192 mother-child and 186 father-child dyads from community families, children's attachment was assessed at 15–17 months in Strange Situation Paradigm. Aspects of receptive, positive orientation toward each parent – positive affect, committed compliance, empathic concern, and restraint in response to parental prohibition – were observed in naturalistic laboratory contexts. Generally, securely attached children were more receptive and positive than insecure, although specific effects depended on the measure, comparison group (avoidant, resistant, disorganized), and the relationship (mother- or fatherchild). For positive orientation in the father-child dyads, being secure with both parents conferred a modest additional benefit.

Keywords

positive affect; committed compliance; empathy; restraint; mother-child relationship; father-child relationship

For several decades, following Bowlby's groundbreaking work (1969/1982), attachment theory has been a conceptually, empirically, and heuristically powerful force in developmental psychology and psychopathology. A relatively narrow view of attachment portrays it as a bio-behavioral safety-regulating system, focused on protection (Goldberg, Grusec, & Jenkins, 1999), encompassing "safe haven" and "secure base from which to explore." In that view, a secure attachment relationship is one in which the child becomes confident in protection and trusts the parent to be available and willing to provide effective comfort when the child is stressed or threatened. The parent's reliable provision of effective comfort when needed promotes the child's adaptive physiological and behavioral emotion regulation, open emotion expression and comfort seeking, and supports the child's eager exploration of the environment.

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A broader view of attachment portrays it as serving also another developmental goal: To promote the child's positive, receptive orientation toward the parent. A securely attached child becomes receptive to parental influence, complies willingly, is affectively "in tune" with the parent, and eagerly embraces parental socialization agenda. This function of security is key for successful socialization, as it inaugurates parent-child implicitly cooperative interpersonal set, permeated with mutual good will and infused with shared positive feelings. The emergence of such orientation at the beginning of the second year is developmentally significant, as it coincides with the typical onset of parental control and discipline. By contrast, an insecure attachment can launch the dyad on a mutually adversarial and resentful trajectory, with the parent and the child becoming increasingly antagonistic. Of note, little is known about potential differences in how this process unfolds among the various insecure groups.

In several longitudinal studies, we have amply demonstrated the benefits of security for early emerging child positive, receptive, willing orientation (Goffin et al., 2018; Kim & Kochanska, 2017; Kochanska, 1995; Kochanska et al., 2005; Kochanska et al., 2015). Other scholars have also broadly supported the notion that compared with insecurely attached children, children in secure relationships are more compliant and receptive to parental agenda (Kok et al., 2013; van Bakel & Riksen-Walraven, 2002; van der Mark, Bakermans-Kranenburg, & van IJzendoorn, 2002; Matas, Arend, & Sroufe, 1978; Thompson, 2006; 2016), express more positive affect (Cooke, Kochendorfer, Stuart-Parrigon, Koehn, & Kerns, 2019), and are more empathic (Panfile & Laible, 2012). Experimental intervention studies targeting attachment security have shown that increased compliance is one of the positive intervention outcomes (e.g., Lind, Bernard, Yarger, & Dozier, 2020). Such positive, receptive characteristics of securely attached children launch the parent-child dyad on an adaptive, mutually positive, and cooperative socialization pathway. Those findings dovetail conceptually with Bowlby's notion of goal-corrected partnership (Bowlby, 1969/1982; Marvin, Britner, & Russell, 2016) and with models of socialization informed by the attachment framework (Bretherton, Golby, & Cho, 1997; van IJzendoorn, 1997; Laible & Thompson, 2000; Maccoby, 1983; 1992; Maccoby & Martin, 1983; Parpal & Maccoby, 1985; Thompson, 2006; 2015; Sroufe, 2016; Waters, Kondo-Ikemura, Posada, & Richters, 1990).

In the current article, we report a new investigation that addresses associations between children's attachment organization and their positive, receptive orientation toward the parents. The new Children and Parents Study (CAPS) extends past research in several ways. One, CAPS involves a larger sample, almost double in size of past studies. This allows us to examine differences among children classified as secure, avoidant, resistant, and disorganized, whereas most of the past studies necessarily focused on the more global secure-insecure comparison. Two, we examine several aspects of the child's positive, receptive orientation toward the parent. Those aspects include affective dimensions (positive emotion expressed to the parent and emotional empathy to parental distress) and behavioral dimensions that capture the child's response to parental early control (committed compliance, coded in response to parental control, and spontaneous restraint, coded in the absence of control). Three, we examine whether a combination of security status with the mother and father (i.e., secure with both, insecure with both, secure with one but

insecure with the other) has meaningful implications for the measures of positive, receptive orientation. This question has recently been posed as one of the critical unsettled issues in attachment research (Dagan & Sagi-Schwartz, 2018).

We consider the inclusion of parallel observations of the child with the mother and the father an important strength of this work. Following decades of the predominant focus on mother-child attachment, interest in fathers and children, and more generally, in children's attachment in the context of the two relationships, has been rapidly growing. As three recent examples, in 2019, *Attachment and Human Development* published a special issue titled "A family systems perspective on fathers and attachment" (Cowan & Cowan, 2019); in 2020, the same journal published another special issue, "Fathers from the attachment perspective" (Ahnert & Schoppe-Sullivan, 2020), and in 2019, *Monographs of the Society for Research in Child Development* published an issue on "Advancing Research and Measurement on Fathering and Children's Development" (Volling et al., 2019).

Of note, despite the growing interest and agreement that understanding similarities and differences in attachment processes with the mother and the father is critical, we are still far from reaching a consensus as to what – if any – those are. A common theme in that literature is to link the mother-child security with the safe-haven function of attachment (calming, comforting, soothing distress), and father-child security – with the secure base for exploration and regulation of intense, joyful emotions (Grossmann & Grossmann, 2020; Olsavsky, Berrigan, Schoppe-Sullivan, Brown & Kamp Dush, 2020; Paquette, 2004). Historically, the theme of fathers' important role in the regulation of positive affect can be traced to Parke and colleagues (MacDonald & Parke, 1984). Given the lack of a firm consensus in the literature, our investigation of potential differences in the processes in mother- and father-child dyads was exploratory.

Method

Participants

Two hundred two-parent community families with infants (born in 2017 and 2018; 96 girls) volunteered for CAPS. The families resided in a Midwestern state, in an area that encompassed a college town, small cities, and rural communities. They were recruited through flyers, posters, social media, and mass emails. The eligibility criteria were as follows: both parents willing to participate and speak English during sessions; a biological, typically developing child; and the family not planning to move in the next five years.

The families represented a range of educational background: 14.5% of mothers and 24.0% of fathers had no more than a high school education, 46.5% of mothers and 43.5% of fathers had an associate or college degree, and 39.0% of mothers and 32.5% of fathers had a postgraduate education. The median household income was $85,000 (*SD* = $44,530, range = $4,000 to $320,000). In terms of racial background, 88.5% of mothers and 88.5% of fathers were White, 1.5% of mothers and 3.0% of fathers African American, 5.5% of mothers and 3.5% of fathers Asian, and 4.5% of mothers and 3.5% fathers multiracial. Three (1.5%) fathers did not disclose their race. In terms of ethnicity, 4.5% of mothers and 1.5% of fathers identified as Latino, with the rest identifying as non-Latino (95.0% of mothers and

98.5% of fathers) or not reporting their ethnicity (0.5% of mothers). Parents reported 82.5% children as being White, 2.5% African American, 3.0% Asian, and 10.5% multiracial. Three (1.5%) families did not disclose the race of the child. Eleven (5.5%) of the children were identified as Latino, 94.0% as non-Latino, or were missing ethnicity information (0.5%). In 40 families (20%), one or both parents were non-White or Latino. Demographic data were entered using REDCap electronic data capture tools hosted at the University of Iowa (Harris, Taylor, Minor et al., 2019; Harris, Taylor, Thielke et al., 2009). The University of Iowa IRB approved the study (CAPS, 201701705); the parents completed informed consents at the entry to the study.

Overview of Design

The data reported in this article come from the assessment conducted when children were 15–17 months old, $M = 16.17$, $SD = .75$. Each mother-child dyad (N=193, 93 girls) and each father-child dyad (N=186, 90 girls) participated in a 2–2.5-hour, carefully scripted laboratory session, conducted by a female experimenter (E). The sessions were on different days (typically within 1–2 weeks). The session encompassed a broad range of paradigms and contexts, varying in their psychological potentials (play, snack, chores, free time, standard tasks, etc.). The laboratory includes a naturalistically furnished Living Room and a sparsely furnished Play Room. The Living Room contains a low table with extremely attractive toys and objects. During an initial conversation with the parent, E designated those as off limits to the child, and asked the parent to communicate this to the child. She then waited for the parent to issue the prohibition and asked him or her to enforce it throughout the session.

The order of the parents' sessions was counterbalanced. Attachment was assessed in the Strange Situation Paradigm (SSP, Ainsworth & Wittig, 1969), conducted as the first context in the session (for one mother-child dyad, the SSP was terminated early due to the child's illness). During the session, we also collected observational measures of the child's positive, receptive orientation toward the parent (positive affect expressed to the parent, committed compliance, empathic concern in response to parental distress, and restraint of the parent's prohibition). The sessions were videotaped through one-way mirror for later coding. Multiple teams coded behavioral data. Between 15% and 20% of cases were sampled for reliability; frequent realignments followed to prevent observers' drift. Kappas, weighted kappas, and intra-class correlations (ICCs) were used to compute reliability, as appropriate.

Measures

Children's Attachment to Mothers and Fathers (SSP)—The SSP was conducted according to the standard guidelines, in a laboratory room that met the required specifications. Two professional attachment coders were blind to all other information about the participants (one coder coded a given child with one parent only). Each child's attachment was classified as avoidant (A), secure (B), or resistant (C), and received a disorganization rating (1–9). Children rated as 5 or higher received "disorganized" (D) as their leading classification and were combined with "unclassifiable" (U) into one category (D/U). The frequencies of the children in each category with each parent are in Table 1.

We also examined the combinations of secure (B) vs. insecure (A, C, D/U) attachment organization with both parents. In that regard, 100 children were secure with both, 26 children were insecure with both, 25 children were insecure with the mother, but secure with the father, and 34 children were secure with the mother, but insecure with the father.

As for reliability of coding, the same coders had previously coded over 200 SSPs of children and their parents drawn from the same community in another study, conducted in our laboratory by a team of research assistants who had received an identical training. The coders' reliability, kappa, had been .78 for the four main attachment categories (A, B, C, and D/U). We conducted an additional reliability check using data from 17% of the families in CAPS. Kappa was .88. All cases coded with low confidence by one coder were double-coded and adjudicated.

Measures of Children's Positive, Receptive Orientation with Mothers and Fathers

Children's Positive Affect toward the Mothers and Fathers

Paradigms and coding.: Children's positive affect was observed in naturalistic parent-child interactions (e.g., snack, play, parent busy, play) for a total of 18 minutes with each parent. For each 30-sec segment, coders observed the child's facial, vocal, and bodily expressions of positive affect (negative affect was also coded but not considered in the present article). The codes reflected the intensity of the child's expressed positive emotion. If no positive emotion was present, the segment was coded as 0. Neutral positive mood was coded when the child had a positively tinged expression, alert, bright-eyed, and appeared to be in a good mood (coded as 1). Discrete positive emotions were clear expressions of joy or affection, such as smiles, or snuggling to the parent (coded as 2). Discrete positive emotions that were strong, such as giggling, full-fledged laughter, strong affection, or persisted for more than 15 seconds were defined as intense (coded as 3). Reliability, kappas, across several teams of coders, ranged from .73 to .84.

Data aggregation.: The codes were summed for each of the observed contexts. The scores were inter-correlated across the contexts. Cronbach's alpha for children with mothers was .52 (item-total correlations .20 – .43), and for children with fathers, .61 (item-total correlations .30 – .51). The final composite of child positive affect was the average of those summed scores with each parent.

Children's Committed Compliance with Mothers and Fathers

Paradigms and coding.: We observed children's committed compliance with each parent during 15 minutes of naturalistic interactions. Those encompassed three 5-min scripted contexts: Introduction to the Living Room (including the initial prohibition pertaining to the prohibited attractive objects), free time, and snack prohibition (following the earlier instructions from E, the parent placed snacks, drinks, plates, and napkins on a table in preparation for a snack and asked the child to wait for several minutes). For every 20-sec segment, coders marked presence or absence of parental control (any attempt to influence, initiate, stop, or change child behavior). If control was present, child response was coded. Committed compliance was coded as genuine, self-regulated, willing compliance with the

parent's directive. Reliability, kappas, were .82 and .84 for two pairs of coders (other types of child response were coded, but not considered in this article).

Data aggregation.: The committed compliance codes were tallied and divided by the number of coded segments in which parental control was present.

Children's Empathic Concern in Response to Mothers' and Fathers' Distress

Paradigm and coding.: We observed children's empathic concern expressed in response to their mothers' and fathers' distress in a classic empathy probe (Kim & Kochanska, 2017; Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992). The parent and child were given a toy that involved a hammer-like part (pounding blocks, drum). The parent received a brief written instruction, and was asked to pretend, for approximately 30 seconds, that the child hurt his or her finger with the hammer during play (and then to reassure the child). Coders coded every 5-sec segment, beginning with the moment when the parent began to simulate distress. The codes (presence or absence) included facial display of empathic emotion (e.g., sadness, concern, distress), behavioral display of concern or affection (e.g., kisses finger, hugs parent, strokes the parent's hand), and verbal expression of concern (e.g., makes comforting sounds, inquires about the pain or the finger). The length of the simulation episodes was on average 26 seconds for mothers and 25 seconds for fathers. Reliability of coding, ICCs, were .93, .95, and .82 for the facial, behavioral, and verbal displays of empathic concern, respectively.

Data aggregation.: The facial, behavioral, and verbal expression of empathic concern codes were tallied for each parent. They cohered, ranging from .28 to .53, all ps < .001, for mothers and .23 to .52, all ps < .0025, for fathers. The tallies were summed and divided by the number of the coded segments, to create an overall composite of empathic concern in response to the parent's distress. We additionally regressed those scores on the "salience of parental simulation", which was coded from 1 = *little or no emotion expressed*, to 3 = *salient emotion expressed*, Kappa = .54, and we used the residualized scores in the analyses. Mothers' and fathers' salience scores were unrelated, Chi-Square (2) < 1.

Children's Restraint in Response to Mothers' and Fathers' Prohibition

Paradigms and coding.: Restraint in response to the parent's prohibition (pertaining to the attractive off-limits objects in the Living Room) was coded during the same contexts as committed compliance. An instance of restraint was coded when the child directed attention (e.g., looked, approached, extended a hand) toward the prohibited objects, but made no attempt to touch them. By convention, those could only be coded during the segments when the parent did not engage in any control (and thus, any manifested child restraint was fully spontaneous and self-regulated). Note that this convention assured that we captured the subtle distinction between the construct of committed compliance, coded when the child complied enthusiastically with parental control, and restraint, coded when the parent did not attempt to control the child. Reliability, kappas, were .81 and .84 for two pairs of coders.

Data aggregation.: All instances of restraint were tallied and divided by the number of segments when parental control was absent to create a composite of children's restraint in response to each parent's initial prohibition.

Descriptive data about attachment and children's receptive, positive orientation are listed in Tables 1 and 2. Table 1 presents descriptive data for all the constructs (all children, by attachment category) and the frequencies of the attachment categories for mother-child and father-child dyads. Table 2 presents data for the four groups of children representing combinations of security status (secure vs. insecure) with both parents.

Results

Preliminary Analyses

Children's attachment organization with one parent was associated significantly but weakly with that with the other parent, Kappa = .26, $SE = .06$, $p < .001$, supporting modest concordance between mother-child and father-child attachments. Those values are comparable to several past studies (Fox, Kimmerly, & Schafer, 1991; Steele, Steele, & Fonagy, 1996). We then examined potential differences in the measures of children's positive, receptive orientation with the mother versus the father. No significant differences were found for any of the studied constructs. Next, we examined the inter-correlations among all the measures of children's receptive orientation for the child with each parent and across parents. Those data are presented in Table 3. We note that both for mother-child and father-child dyads, the correlations were all relatively modest (ranging from .02 to .21).

In both mother- and father-child relationships, the child's positive affect toward the parent and committed compliance were significantly positively related. As well, in both relationships, the child's committed compliance and restraint were positively related. Empathic concern was unrelated to other measures of receptiveness.

Three of the four aspects of the receptive orientation correlated significantly across the two relationships (although those correlations were also modest, .14 to .32). Children who expressed more positive affect, committed compliance, and restraint with one parent were also likely to have higher parallel scores with the other parent. The cross-parent correlation for empathy to parental distress was marginal.

Testing the Links between Children's Attachment to Parents and Their positive, Receptive Orientation

Overview of the analytic approach.—To examine children's positive, receptive orientation toward their parents in dyads differing in their attachment organization, we utilized a MANOVA-based approach, which allows for multiple comparisons while controlling for the family-wise error rate. Specifically, we conducted two omnibus MANOVAs, one for the mother-child dyads and one for the father-child dyads. In each, we entered the four dependent variables (with the respective parent): positive affect, committed compliance, empathic concern, and restraint of prohibition. The between-subject factors were the child's attachment category (A, B, C, D/U), and child gender. When the omnibus effect of the child's attachment category was significant, we followed up with post-hoc

analyses for the dependent variables using Tukey's Honest Significant Difference (HSD) test.

Furthermore, we compared four groups of children that reflected their combinations of attachments with both parents – securely attached to both parents, insecurely attached to both, insecurely attached to the mother, but securely attached to the father, and securely attached to the mother, but insecurely attached to the father – with regard to the measures of their receptive, positive orientation toward each parent. We created the attachment combinations based on the child's overall attachment status – secure vs. insecure – rather than specific attachment categories (A, B, C, D/U), because the latter would result in very low numbers in many combinations and drastically increase the number of potential post-hoc comparisons. Our analytic approach here was analogous: We conducted two MANOVAs, one for the measures of positive orientation toward the mothers and one for the measures of positive orientation toward the fathers, using the child's gender and combination of attachment with both parents as between-subject factors. We followed up with HSD tests when the omnibus effect of group was significant.

A summary of significant findings can be found in Table 4. Of note, we attempted to control for the order of sessions (mothers first or fathers first) in the MANOVAs, but session order did not produce significant omnibus effects. Therefore, we did not include session order as an additional factor in the final models.

We conducted the analyses using SPSS 25. Missing data were minimal: For variables with missing data, missing rates were 0.5% to 2.1% within mother-child dyads and 1.1% within father-child dyads. Little's MCAR test indicated that data were missing completely at random, $\chi^2(21) = 18.70$, $p = .60$. These missing data were deleted listwise.

MANOVA for the mother-child dyads.—Using Pillai's criterion, we detected a significant omnibus effect of gender on the measures of children's receptive, positive orientation to their mothers, $F(4,180) = 3.08$, $p = .017$, partial $\eta^2 = .064$. Compared with boys, girls engaged in significantly more committed compliance, $F(1,183) = 5.14$, $p = .025$, partial $\eta^2 = .027$.

We also found a significant omnibus effect of attachment, Pillai's $F(12,546) = 1.91$, $p = .031$, partial $\eta^2 = .040$. Univariate ANOVAs suggested that children with varying attachment categories differed on their committed compliance, $F(3,183) = 2.68$, $p = .049$, partial $\eta^2 = .042$, and restraint, $F(3,183) = 3.15$, $p = .026$, partial $\eta^2 = .049$. However, post-hoc comparisons using Tukey's HSD did not reveal significant differences between any two attachment groups for these two dependent variables. In addition, there was a marginal effect of attachment category for empathic concern, $F(3,183) = 2.13$, $p = .098$, partial $\eta^2 = .034$. Tukey's HSD post-hoc tests suggested that securely attached children expressed more empathic concern to their mothers' distress than their avoidant peers, $p = .036$, Cohen's $d = 0.65$ (see Figure 1 a). However, with the overall effect for empathic concern being marginal, this significant difference needs to be interpreted with caution. There was no effect for attachment category and positive affect, $F(3,183) = 1.28$, $p = .284$, partial $\eta^2 = .021$.

MANOVA for the father-child dyads.—We found no overall effect of child gender on the measures of children's receptive, positive orientation to their fathers, Pillai's $F(4,176) = 1.23$, $p = .302$, partial $\eta^2 = .027$. However, the omnibus effect of children's attachment category was significant, Pillai's $F(12,534) = 3.01$, $p < .001$, partial $\eta^2 = .063$. Univariate ANOVAs revealed a significant effect of attachment category and children's positive affect, $F(3,179) = 5.79$, $p = .001$, partial $\eta^2 = .089$. Tukey's HSD suggested that securely attached children expressed more positive affect to their fathers, compared to their avoidant and resistant peers, ps = .042 and .008, ds = 0.62 and 0.84, respectively (see Figure 1 b). Further, univariate ANOVA indicated that attachment category had a significant effect on committed compliance, $F(3,179) = 5.07$, $p = .002$, partial $\eta^2 = .078$. Tukey's HSD suggested that securely attached children and disorganized children engaged in more committed compliance than resistant children, ps = .004 and .042, ds = 0.97 and 0.87, respectively (see Figure 1 c). There was no effect of children's attachment category on their empathic concern to the fathers' distress or on restraint, $F(3,179) = 1.63$, $p = .184$, partial $\eta^2 = .027$, and $F(3,179) = 1.06$, $p = .369$, partial $\eta^2 = .017$, respectively.

MANOVA for the combinations of attachments with both parents.—The combination of attachment security with both parents was unrelated to children's receptive, positive orientation to their mothers, Pillai's $F(12,528) = 1.72$, $p = .060$, partial $\eta^2 = .038$ for the omnibus effect, and none of the corresponding univariate effects was significant. However, there was a significant omnibus effect of the combination of attachment security with both parents on children's receptive, positive orientation to their fathers, Pillai's $F(12,531) = 2.27$, $p = .008$, partial $\eta^2 = .049$. Univariate ANOVAs suggested that the combination of attachment security with both parents had significant effects on children's positive affect and on committed compliance to their fathers, $F(3,178) = 5.97$, $p < .001$, partial $\eta^2 = .091$, and $F(3,178) = 3.57$, $p = .015$, partial $\eta^2 = .057$, respectively. Post-hoc Tukey's HSD suggested that children who were securely attached to both parents expressed more positive affect to their fathers than children who were insecurely attached to fathers, but securely attached to mothers, and more than children who were insecurely attached to both parents, ps = .017 and .024, ds = 0.59 and 0.61, respectively. Further, children who were securely attached to fathers but not mothers also expressed more positive affect to their fathers than children who were insecurely attached to fathers, but securely attached to mothers, and more than children who were insecurely attached to both parents, ps = .016 and .018, ds = 0.85 and 0.84, respectively. Put another way, children whose attachments to fathers were secure expressed more positive affect to the fathers than children whose attachments to fathers were insecure (regardless of their status with mothers). Additionally, children who were secure with both parents engaged in more committed compliance to their fathers than children who were insecure with both parents, $p = .009$, $d = 0.69$. The group differences are illustrated in Figure 2.

Discussion

Traditionally, secure attachment has been considered critical for children's emerging sense of confidence in their parents' protection and availability when the child encounters stress or threat (safe haven) and when the child engages in exploration (secure base from which

to explore). Increasingly, however, attachment scholars have come to recognize also the broader role of early security as a foundation for the emerging positive, mutually cooperative interpersonal orientation between the parent and the child. Very few studies, however, have examined this process in children in both their early relationships – with mothers and with fathers.

This study had a straightforward goal: To examine associations between young children's attachment organization and their positive, receptive orientation to the parents, using parallel data from both relationships. Specifically, we focused on four indicators of children's positive, receptive orientation to their parents: positive affect, committed compliance, empathic concerns, and restraint in response to parental inhibition. These indicators encompass a range of early affective and behavioral characteristics that are crucial in early socialization: the willingness to follow rules with and without parental guidance (committed compliance and restraint), as well as engagement in interactions infused with positive emotions (positive affect) and a capacity to notice and care about parental distress (empathic concern).

Of note, our data showed that at 15–17 months, not all those various aspects of positive orientation were significantly inter-related. In both mother- and father-child dyads, the patterns of relations were similar: Positive affect and committed compliance, and committed compliance and restraint were related, but empathic concern to the parent's distress was unrelated to the other markers of the receptive orientation. Other studies have also shown associations between young children's positive affect and their committed compliance, and between committed compliance and restraint (Kochanska & Aksan, 1995; Kochanska, Aksan, & Koenig, 1995; (Kochanska, Tjebkes, & Forman, 1998). The relations with empathy to parental distress may be more complicated. Although children's willingness to follow the parent's rules and their response to parental distress have been both of great interest to scholars of early morality (Dahl & Tran, 2016; Thompson, 2006, 2012, 2015), surprisingly little is known about associations between those two forms of emerging socialization. Kochanska, Koenig, Barry, Kim, and Yoon (2010) reported that those measures, obtained repeatedly from age 2 to 4.5, were unrelated in a sample of community families (mothers, fathers, and children), a finding consistent with the current study. However, Feldman (2007) found that children's committed compliance between age 2 and 6 was positively associated with measures of children's dialogical empathy at ages 6 and 13, assessed in mother-child discussions of conflicts. Therefore, one possibility is that compliance/internalization and empathy are unrelated in early development, but may form a more coherent receptive orientation toward the parent later on, perhaps at the early school age. Indeed, the development of the receptive orientation depends on children's cognitive and regulative abilities. For instance, children's empathy evolves as their perspective-taking abilities mature at preschool age (McDonald & Messinger, 2011). Children's internalized conduct and behavioral restraint are also closely related to their effortful control, which grows from toddlerhood to preschool age (Kochanska & Aksan, 2006). Perhaps the multiple indicators of receptive, positive orientation become coherent when children develop more advanced cognitive and regulative abilities. Yet, it is also possible that they are underpinned by distinct broad personality systems (positive and negative affectivity, respectively) and although both indicate an orientation toward the parent, and both relate to early attachment,

they may not necessarily become very coherent, even as development progresses. This issue is well worth of future research attention.

In the current study, given the pattern of inter-correlations among those measures, we decided to examine them separately in terms of their associations with attachment. Following this analytic approach, we were able to support several unique associations between attachment and specific indicators of children's positive, receptive orientation. The significant findings were quite clear and consistent with our expectations, and they supported our view of security as an important factor implied in the origins of successful socialization.

In both mother- and father-child relationships, securely attached children had higher scores on multiple measures of positive, receptive orientation to the parent. The findings, however, depended on the type of measure and the relationship. Note that we adopted a conservative analytic approach that required an omnibus multivariate test to be significant first, to follow up with univariate analysis of variance effects and post-hoc HSD tests.

For mother-child relationships, we found evidence of securely attached children being more empathic to the mother's distress than avoidant children (recall that despite the significant omnibus MANOVA effect of the attachment category, the univariate ANOVA produced a marginally significant effect, so this difference needs to be interpreted with caution). Attachment scholars have increasingly emphasized that security constitutes a natural ecology for the development of empathy and prosociality, and have reported that insecurely attached children, particularly avoidant ones, typically show less empathic concern, comforting behavior, and prosociality (Beier et al., 2019; Kim & Kochanska, 2017; Shaver, Mikulincer, Gross, Stern, & Cassidy, 2016; Stern & Cassidy, 2018). This effect might be related to avoidant children's tendency to minimize their emotion expression (Cassidy, 1994; Martins, Soares, Martins, Tereno, & Osório, 2012). Although growing, that research is relatively recent, and little is known about the very early differences, assessed in the first two years, when empathy only begins to emerge (Davidov, Zahn-Waxler, Roth-Hanania, & Knafo, 2013; Eisenberg, Spinrad, & Knafo-Noam, 2015; Stern & Cassidy, 2018; Zahn-Waxler et al., 1992). Because attachment coalesces around specific caregivers at about the same time, studying its associations with the emerging empathy can be illuminating and can contribute to both literatures. It is unclear why we failed to find a similar effect for fathers and children; but we note that this pattern of results parallels our findings from another longitudinal study, in which children's security in SSP (vs. insecurity) predicted child empathic concern in a similar paradigm with the mother, but not with the father (Kim & Kochanska, 2017).

For father-child relationships, we found significant effects of attachment classification for two measures of child positive orientation. Securely attached children expressed more positive affect toward the fathers than did avoidant or resistant children and engaged in more committed compliance with the father than did children with resistant attachments (surprisingly, disorganized children were also more compliant than resistant children). As previously reviewed, it has been known for a while that securely attached children are more affectively positive (Cooke et al., 2019) and more cooperative with their parents

(Ainsworth, Bell, & Stayton, 1974; van Bakel & Riksen-Walraven, 2002; Kochanska et al., 2005; Londerville & Main, 1981; Matas et al., 1978; Thompson, 2006). Relatively few studies, however, have examined the child's positive affect and compliance in both mother- and father-child attachment relationships (Frosch, Cox, & Goldman, 2001; Kochanska et al., 2005; Lickenbrock et al., 2013). The extant findings were consistent with the current results: Securely attached children displayed more committed compliance towards their parents (Kochanska et al., 2005; Lickenbrock et al., 2013) and resistant children were less compliant and less enthusiastic towards parents' agenda (Frosch et al., 2001). Children with resistant attachments have often been described as having poor regulatory abilities (Cassidy, 1994; Crugnola et al., 2011; Diener, Mangelsdorf, McHale, & Frosch, 2002) and being aggressive to their parents (Bus, Belsky, van IJzendoorn, & Crnic, 1997). Regulatory difficulties may be one factor that links insecurity with poor compliance (Frosch et al., 2001). This is consistent with our finding in father-child dyads of resistant children being least compliant.

To summarize, in both mother- and father-child relationships, there was evidence of securely attached children being more receptive and positive toward the parent than insecurely attached children, but the findings were for different measures of the positive orientation. In mother-child relationship, we supported the role of security as fostering empathic concern. Although there was some indication of the role of security for committed compliance and restraint (multivariate and univariate F tests), those effects were not confirmed by the stringent post-hoc tests we adopted. In father-child relationships, we supported the role of security for positive affect and committed compliance. However, we found no association between attachment organization and restraint in either mother-child or father-child dyads, perhaps because the spontaneous restraint of behaviors without parental control is relatively rare at this age, given the just-emerging self-regulation skills. We intend to examine the associations between attachment and positive, receptive orientation at later ages with future longitudinal data.

Our additional analyses of the child's "double" attachment status (secure vs. insecure) with both or one parent were relatively modest and consistent with our other findings for father-child dyads. Children who were securely attached to the father (regardless of their status with the mother) expressed more positive emotion toward the father than children who were insecurely attached. The "double-secure" children were more enthusiastically compliant with the father then "double-insecure". There were, however, no findings for the child's "double attachment" status for measures of child positive orientation toward the mothers. We note that little is known about the dynamics of attachment configurations in the network of early relationships and their role in development, so those analyses were exploratory (Dagan & Sagi-Schwartz, 2018). As examples, some studies have shown that whereas "double-insecure" status poses significant risk for long-term behavioral outcomes, secure attachment with either parent can offset or buffer the risk (Kochanska & Kim, 2013). However, a study of infants' physiological response (cortisol reactivity) to laboratory tasks revealed that infants securely attached only to fathers but not to mothers had less effective regulatory response than infants securely attached only to mothers but not to fathers (Kuo, Saini, Tengelitsch, & Volling, 2019). Clearly, our understanding of the implications of attachment configurations in early relationships is far from complete.

It was unclear why the associations between attachment and children's receptive, positive orientation were not replicated across mother- and father-child dyads. Studies that include both mother-child and father-child relationships sometimes suggest different roles of mothers and fathers, with mothers seen as the nurturers who provide relatively more warm, calm care and guidance, and fathers seen as engaging relatively more often in playful, intense interactions (Amodia-Bidakowska, Laverty, Ramchandani, 2020; Grossman & Grossman, 2020; Grossmann, Grossmann, Kindler, & Zimmerman, 2008; MacDonald & Parke, 1984; Paquette, 2004). Those differences have been interpreted as perhaps reflecting the differential roles of safe haven versus secure base in the two relationships. Growing empirical and conceptual research has linked father-child security with joyful, stimulating, often physical father-child play (see recent review, StGeorge, Wroe, & Cashin, 2018).

Dovetailing with the empirical and conceptual perspectives that have indicated that father-child relationships may be more consequential for eliciting and regulating children's positive affect, our findings clearly indicated the role of child-father security as supporting toddlers' positive emotional displays during interactions with their fathers. It is further possible that interactions infused with positive affect in securely attached father-child dyads were conducive to those secure children's committed compliance with fathers; as aforementioned, the association between children's positive affect and compliance is well known (Kochanska & Aksan, 1995; Kochanska et al., 1995). Future studies are needed to replicate the findings and examine the effects of parental roles in daily interactions.

This study has several strengths. We collected robust observational data on attachment and children's behavioral manifestations of multiple aspects of their early positive, receptive orientation to their parents. With the relatively large sample, we were able to examine separate groups of insecure attachment (avoidant, resistant, disorganized/unclassifiable), rather than limiting the comparisons to the secure versus insecure groups. Indeed, our findings suggested that the risk of insecure attachment compared to secure attachment may be only present for specific insecure categories, supporting the benefits of examining the insecure attachment categories separately.

The inclusion of both mother-child and father-child dyads is also a strength. As the extant literature has focused vastly more on children's relationships with mothers than with fathers, our study made a significant contribution by emphasizing the important role father-child relationships play in socializing children's receptive, positive orientation, especially their positive affect towards parents. Somewhat surprisingly, our findings for father-child relationships appeared more robust than those for mother-child relationship, further emphasizing the need to focus on fathers' role in early development.

Our findings highlight the importance of including fathers in early attachment interventions. Attachment interventions often primarily focus on mothers, and only a limited number of intervention studies have taken fathers into account (Alyousefi-van Dijk, de Waal, van IJzendoorn, & Bakermans-Kranenburg, 2021; Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003; Cowan & Cowan, 2019; Cowan, Cowan, Pruett, & Pruett, 2018). Intervention programs may be enhanced by emphasizing father-child attachment specifically, as well as the organization of attachment in the system of family relationships. The combination of

insecure attachments with both parents was associated with lower committed compliance, providing a toddler-age replication of our findings in another sample that showed the risks for development in middle childhood (Kochanska & Kim, 2013). It is therefore important to consider comprehensively the child's attachments in the family system to identify children at risk and develop intervention programs.

This work has limitations. Perhaps the most important constraint is the reliance on concurrent measures. This limits our ability to draw inferences about direction of effects. Therefore, although the pattern of findings is consistent with our expectations, the conceptual model, and our and others' theoretical and empirical work, the study is mainly descriptive and cannot speak to causality. We plan, however, to collect data at subsequent assessments. That work is underway.

Perhaps most importantly, although our data show a meaningful pattern of associations between children's attachment organization and their emerging receptivity to parental socialization, the understanding of the processes involved cannot be complete without considering measures of parents' behavior. Conceptual and empirical developmental accounts of longitudinal relations among attachment, parenting, and children's socialization outcomes have shown that an early secure relationship has positive implications for both the child's and the parent's willing, responsive stance toward each other (Goffin et al., 2018; Thompson, 2006). Longitudinal designs that utilize repeated assessments of the child's and the parent's behavior unfolding as a result of the early quality of attachment promise to elucidate those complex mutual socialization dynamics.

Our sample consisted mostly of low-risk, two-parent families with typically developing children. Mothers' and fathers' parenting appeared overall adaptive and skillful, and children were generally quite compliant, cooperative, and affectively positive. Most children were securely attached, with our rates of security (71% with mothers, 67% with fathers) relatively consistent with data for low-risk US community samples. But consequently, the insecurely attached groups in this study were relatively modest in size, making it challenging to compare children with avoidant, resistant, and disorganized attachments. To offset this concern, we made a deliberate decision to adopt a stringent analytic approach.

Future studies with samples of high-risk families would be informative. Furthermore, ethnic diversity was limited (although note that in 20% of families, one or both parents were non-White or Latino).

Despite the limitations, our findings supported the associations between secure attachment and children's positive, receptive orientation in both mother-child and father-child dyads and across affective and behavioral domains. The results highlight the importance of secure attachment with both mothers and fathers as an early factor in children's positive socialization trajectories.

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Data Sharing Statement

The data that support the findings of this study are not publicly available. However, further information about this study is available from the first and second authors, D. A. and G. K, upon reasonable request.

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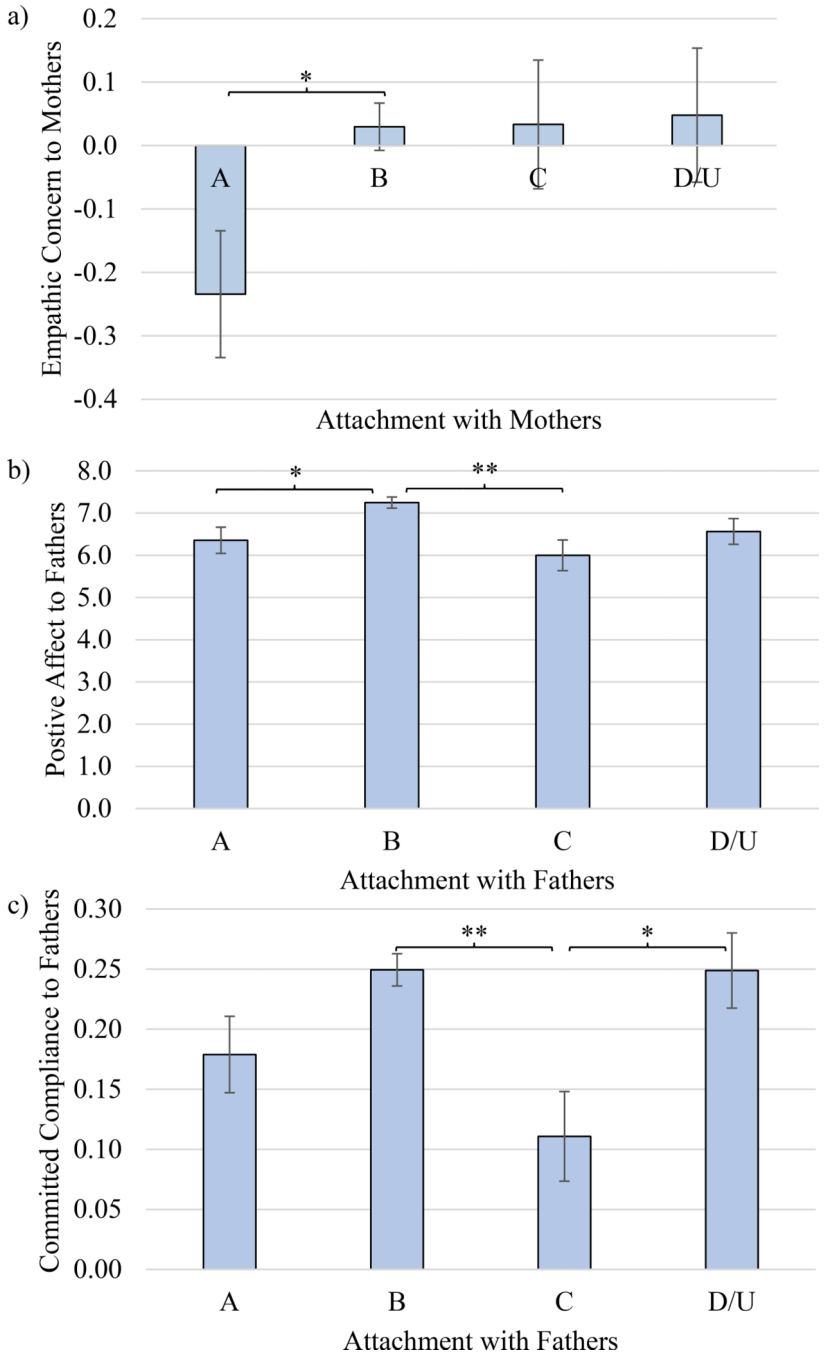

Figure 1.

Post-hoc Tukey's HSD comparisons between the attachment groups on their receptive, positive orientation to their parents. Only variables with significant differences between groups are displayed. Error bars represent standard errors. *$p < .05$. **$p < .01$.

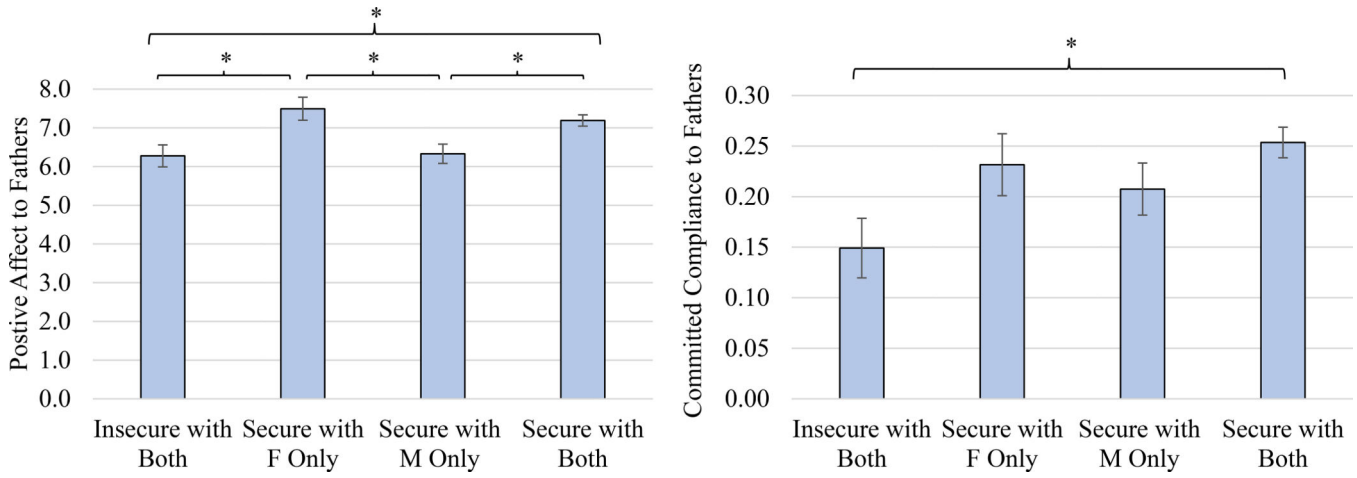

Figure 2.

Post-hoc Tukey's HSD comparisons between the combinations of attachments with both parents. Only variables with significant differences between groups are displayed. Error bars represent standard errors. M = Mother. F = Father. * $p < .05$.

Table 1

Descriptive Data for Children's Receptive, Positive Orientation to Their Parents, Separately for Mother-Child and Father-Child Dyads

	Child Receptive Orientation to Mother							
	Positive Affect		Committed Compliance		Empathic Concern[a]		Restraint	
Attachment Category with Mother	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
All (B, A, C, D/U; *N* = 192)	6.73	1.46	0.23	0.16	0.00	0.44	0.06	0.08
B (*N* = 137)	6.81	1.41	0.24	0.16	0.03	0.46	0.07	0.08
A (*N* = 19)	7.12	1.28	0.27	0.16	−0.26	0.29	0.07	0.07
C (*N* = 19)	6.37	1.50	0.16	0.14	0.03	0.40	0.02	0.04
D/U (*N* = 17)	6.22	1.87	0.18	0.16	0.08	0.39	0.04	0.05
	Child Receptive Orientation to Father							
	Positive Affect		Committed Compliance		Empathic Concern[a]		Restraint	
Attachment Category with Father	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
All (B, A, C, D/U; *N* = 186)	6.95	1.50	0.23	0.16	0.00	0.54	0.07	0.09
B (*N* = 125)	7.25	1.50	0.25	0.15	0.01	0.56	0.07	0.09
A (*N* = 22)	6.35	1.18	0.18	0.15	−0.21	0.38	0.08	0.08
C (N = 16)	6.00	1.40	0.11	0.09	0.16	0.47	0.04	0.05
D/U (*N* = 23)	6.57	1.38	0.24	0.18	0.03	0.57	0.09	0.11

Notes. A = Avoidant. B = Secure. C = Resistant. D/U = Disorganized/Unclassifiable. One child did not complete SSP with mother. Empathic concern data were missing for 4 children with mothers and 2 children with fathers.

[a]Residualized score.

Table 2

Descriptive Data for Children's Receptive, Positive Orientation to Their Parents, by the Combination of Attachments with Both Parents

	Child Receptive Orientation to Mother							
	Positive Affect		Committed Compliance		Empathic Concern[a]		Restraint	
Combination of Attachments	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Securely Attached to Both	7.00	1.40	0.25	0.16	0.02	0.46	0.07	0.08
Securely Attached to Mother Only	6.31	1.36	0.21	0.15	0.08	0.45	0.06	0.07
Securely Attached to Father Only	6.83	1.47	0.24	0.18	−0.15	0.30	0.04	0.06
Insecurely Attached to Both	6.48	1.55	0.19	0.14	−0.03	0.42	0.05	0.06
	Child Receptive Orientation to Father							
	Positive Affect		Committed Compliance		Empathic Concern[a]		Restraint	
Combination of Attachments	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Securely Attached to Both	7.18	1.49	0.25	0.15	−0.00	0.59	0.07	0.10
Securely Attached to Mother Only	6.33	1.24	0.21	0.17	−0.00	0.46	0.09	0.10
Securely Attached to Father Only	7.50	1.53	0.23	0.16	0.07	0.44	0.07	0.06
Insecurely Attached to Both	6.28	1.39	0.15	0.12	−0.03	0.55	0.05	0.07

*Notes. N*s were as follows: Securely attached to both, 100; Securely attached to mother only, 34; Securely attached to father only, 25; Insecurely attached to both, 26.

[a]Residualized score.

Table 3

Inter-Correlations among All Constructs

	Positive Affect	Committed Compliance	Empathic Concern	Restraint
Positive Affect	.32***	.21***	−.03	.13+
Committed Compliance	.18*	.21**	−.04	.19**
Empathic Concern	−.02	.09	.14+	−.13+
Restraint	.05	.20**	.10	.20**

Notes. Correlations for mother-child dyads are above the diagonal, and correlations for father-child dyads are below the diagonal. Correlations between mother- child and father-child constructs are on the diagonal.

+ $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 4

A Summary of Significant Differences in Children's Receptive, Positive Orientation across Attachment Groups

	Child Receptive Orientation to Mother				Child Receptive Orientation to Father			
	Positive Affect	**Committed Compliance**	**Empathic Concern[a]**	**Restraint**	**Positive Affect**	**Committed Compliance**	**Empathic Concern[a]**	**Restraint**
Analyses within Dyad								
Attachment with M	-	-	A < B	-	N/A	N/A	N/A	N/A
Attachment with F	N/A	N/A	N/A	N/A	A < B; C < B	C < B; C < D/U	-	-
Analyses across Dyads								
Combination of Attachments with M and F	-	-	-	-	Both Ins < F Sec; Both Ins < Both Sec; M Sec < F Sec; M Sec < Both Sec	Both Ins < Both Sec	-	-

Notes. M = Mother. F = Father. A = Avoidant. B = Secure. C = Resistant. D/U = Disorganized/Unclassifiable. Both Sec = Securely attached to both parents. Both Ins = Insecurely attached to both parents. M Sec = Securely attached to mother only. F Sec = Securely attached to father only. Text in cells denotes significant differences across attachment groups indicated by Tukey' HSD ($p < .05$). Dashed cells indicate no significant differences across groups. N/A = Not available because analysis was not performed.

[a]Residualized score.