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# The Dialectics of Parenting: Changes in the Interplay of Maternal Behaviors during Early and Middle Childhood

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**Abstract** Parent and child relationships continuously evolve, part of an ongoing dialectic that derives from developmental changes in both parent and child. The focus of this study is on changes in the strength of association among four types of parenting behaviors considered important for children’s development: supportive presence, respect for autonomy, stimulation, and hostility. Mother–child interaction was observed for 1229 parent–child dyads at 36 months, 54 months, 1st grade, 3rd grade, and 5th grade using similar observational paradigms. The association between respect for autonomy and supportive presence was strong at age three and continued to be strong over time. The association between respect for autonomy and stimulation was modest but also showed little change from age three to 5th grade. Respect for autonomy was negatively associated with maternal hostility, but the relation was complex. It was stronger at 54 months than 36 months but then became weaker through time. Supportive presence showed a moderate relation with stimulation at age 3 but the association became weaker over time. Supportive presence showed an expected negative association with hostility, a relation that changed little over time. The relation between hostility and stimulation also became weaker over time. In effect, there appears to be a shifting pattern of relations between maternal behaviors during early

and middle childhood, one that reflects an evolving dialectic in the mother–child relationship.

**Keywords** Parenting · Supportive presence · Hostility · Respect for autonomy · Interpersonal dialectics · Stimulation

## Introduction

Parent–child relationships have been a focus of scientific studies for a century. Based on their review, Collins and Russell (1991) concluded that parent–child relationships are constantly being reorganized, “prompted by pressures on both parents and children to adapt to pronounced physical, behavioral, and social changes in offspring” (p. 102). This dialectic leads to gradual shifts in how parents interact with their children, with movement toward greater acceptance of the child’s autonomy as the child grows older (Kucynski et al. 2015). Even so, there tends to be some stability in parent cognitions and parent motivations (Bornstein and Lerner 2015); and identity control theory and self-determination theory suggest that parents will continue to want to assert at least some authority during parent–child encounters (Grolnick et al. 2007; Joussemet et al. 2008; Koepke and Denissen 2012).

Research indicates moderate stability in parenting behaviors such as sensitivity, negativity, intrusiveness, and emotional support from early childhood to adolescence (Else-Quest et al. 2011; Feldman 2010; Laursen et al. 2010; Newton et al. 2014; Pianta et al. 1989; Wang et al. 2013). By contrast, there is little research on how particular classes of parenting behaviors tend to be organized during each developmental period (i.e., the strength of association

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between specific classes such as support for autonomy, stimulation, hostility); much less how the organization of these discrete classes of behavior changes from one developmental period to another. It may be that there is only moderate stability in the strength of relations between particular classes over time just as there tends to be only moderate stability in the level of each. It is important to document normative adjustments in the organization of parenting behavior because, as Darling and Steinberg (1993) argued, the influence of any given class of behavior depends on its connections with other classes of behavior. Schroeder and Mowen (2014) found evidence of shifts in overall parenting style during adolescence, shifts that connected to delinquent behavior in children. Moilanen et al. (2014) also observed some shifts in overall parenting style during early adolescence; but their findings also revealed that the strength of correlations between more discrete classes of behaviors that compose parenting style showed changes as well. This latter shift is important. As Hovee et al. (2009), in their meta-analysis of parenting style and delinquency noted, it is often useful to focus on more discrete classes of behavior in that their relations with other behaviors can be different than is the case for overall style.

Both parents and children are active agents in social encounters. Both parties are conscious of their own behavior and interpret messages from the “other” in every encounter (Bugental and Johnston 2000). The combination leads each party to initiate various forms of behavior during a given encounter. In these encounters parents may well be torn between conflicting parenting functions (e.g., exercising authority, providing guidance, fostering a positive relationship, promoting a sense of security, arranging opportunities). Social Relational Theory suggests that as members of a dyad change, such as generally happens as children become more competent and autonomous, the nature of engagement between the two members of the dyad is also likely to change (Ben-Ari 2012; Kucynski et al. 2015). In that regard, parenting behaviors that co-occur quite often during one era of a relationship (e.g., high supportive presence may often be accompanied by high guidance or stimulation during infancy) may co-occur less frequently during a later era. Changes in the co-occurrence of two types of parenting behavior seem likely when the function of one type of behavior becomes less relevant for the child (i.e., the child’s skills or proclivities have changed) or for the purposes of relationship maintenance (i.e., the dyadic relationship has evolved to one of greater equality). The co-occurrence of two types of behavior may also shift if parents perceive that the child’s needs have changed as a consequence of evolving skills and opportunities for engagement in the broader environment, societal demands for performance, or extra-familial supports for particular skills (Dailey 2008).

As children develop, they are better able to interpret the impact of their behavior and to self-regulate. As children enter middle childhood, they tend to utilize their parents less to solve problems and to help them engage in everyday tasks (Kerns et al. 2006). As this process moves forward, parents tend to interpret the child’s behavior differently and respond accordingly. When children are young and have limited intellectual and self-regulatory competence, there would likely be reasonably strong correlations between parenting behaviors such as supportive presence, provision of stimulation, and respect for autonomy, as all may derive from the parent’s general level of investment and positive feelings toward the child. As children gain skill and have greater understanding of their surroundings, parents may intrude less into children’s behavior and parents may be less inclined to provide guidance and stimulation during an activity. Thus, the correlation between the parent’s supportive presence and stimulation might decrease.

Those who study social relationships point to the fact the human motivations are complex; thus, it can be difficult to predict the exact direction a relationship will take over time or how partners in a relationship will change how they behave during a given type of encounter. Kucynski et al. (2015) claim that contradiction is a basic process in the evolving dialectics of parent–child relationships. Accordingly, it can be difficult to predict whether parenting practices that are highly associated when children are young will become even more strongly related or grow weaker as children age. As Ben-Ari (2012) noted, during any given social encounter oppositional forces can come into play. When children are young and have limited capacities to understand and control their behavior, one would expect that parents who show high levels of supportive presence and respect for autonomy for a child would also evince low levels of hostility toward the child. However, parents would likely have greater expectations regarding appropriate behavior for an older child. In some cases parents may actually become less consistent in what they do vis a vis a child, believing that children are less dependent on such consistency. Meanwhile, the child’s increasing sense of autonomy could lead to more challenging behavior. Such behavior could easily challenge the parent’s sense of identity (Koepeke and Denissen 2012) and create a perception of disrespect (Grolnick et al. 2007; Laursen et al. 2010), thereby promoting conflict (Collins et al. 2006; Laursen et al. 2015). As a consequence, parents may be more inclined to express disapproval when a child’s behavior does not meet expectations. Such a shift in the dynamics of the relationship could reveal itself in a decreased co-occurrence of parenting behaviors indicative of sensitivity (e.g., a parent could cycle between being quite supportive during most of an encounter but then react negatively if directly affronted during the encounter). The research is not yet clear on this issue.

The contradictory forces that can come into play in parent–child relationships make it difficult to offer strong hypotheses as regards shifts in the strength of relations between particular parenting practices as children move through childhood. These difficulties granted, Belsky and Jaffee's (2006) model of parenting would seem to offer a useful framework to guide analyses pertaining to potential shifts in associations between the four parenting behaviors at issue in this study. Their model includes macro- and micro-system (contextual) factors, parent personality and personal history, and child factors. Within this framework, the question then becomes how might particular aspects of context, parental personality, parental history and child behavior/characteristics come into play with respect to a particular type of parenting behavior; in effect, what might motivate more or less of a particular behavior or set of behaviors? A factor that helps determine what a parent is likely to do in any given situation is the actual affordances of the setting or activity in which a behavior takes place (i.e., the immediate micro-context; Chemero 2003). Depending on what a setting/activity demands from both parent and child and what it allows both to do, changes in the likelihood of particular parenting behaviors directed toward the child across early and middle childhood could be small or quite substantial.

From the vantage point of macro-context, there are cultural variations in what parents from different societies or groups tend to do with children, both generally and with respect to particular settings (Trommsdorff 2006). Even within societies there are subgroups in which life circumstances both internal and external to the family motivate different tendencies in parental behavior (Garcia Coll et al. 1996; Krishnakumar and Buehler 2000). For most families, these contextual influences remain relatively stable. Thus, one would expect that their influence on particular parenting behaviors would also remain relatively stable during early and middle childhood. However, relationships between parents could change; and research shows that the quality of the marital relationship can affect parenting behavior (Erel and Burman 1995). The Belsky and Jaffee model also includes attention to parental characteristics (mental and physical health, competence, personal dispositions), with research showing that such characteristics can play an instrumental role in what parents do as parents (Prinz et al. 2009). For the most part, these personal factors would also tend to be stable as offspring move through early and middle childhood; albeit, for some parents there could be changes (e.g., in health). According to Interdependence Theory, a parent who is committed to her/his relationship with a child will want to continue fostering mutual trust and will tend to continue enacting prosocial behaviors toward the child over time (Rusbult and Arriaga 1997).

Interdependence theory has long been used as a framework for understanding how partners in a relationship are likely to behave during a given encounter (Kelley and Thibaut 1978). In well established relationships, the behavior of each person during an encounter depends on: (a) the extent to which each person is dependent on the partner and on their joint effort toward a given end; (b) the degree to which the partners mutually vs. unilaterally need each other for emotional and instrumental support; (c) the extent to which partners' preference for a given outcome are aligned; and (d) the degree to which one member of the dyad is dependent upon the other to achieve a given outcome (Rusbult and Buunk 1993). When there is deep investment in a relationship, as is often the case in parent–child relationships, parents are likely to balance their own needs with the perceived needs of the child. Parents will appraise a given situation (and the child's behavior in that situation) based on what they believe the child understands about the situation and is likely to do in the situation (Holmes 2002; Kelley et al. 2003). As children age and become more competent and independent, parental expectations for the child's behavior are likely to change. Accordingly, there is likely to be some transformation in how the parent evaluates particular behaviors and attempts to exert control and provide particular types of support during a given encounter (Rusbult and Arriaga 1997). There is evidence, for example, that parental communications directed toward children during ordinary activities tend to move from ones that provide direction and guidance to ones that involve bilateral discussions and negotiation of strategies as children move through middle childhood into adolescence (Kreppner 2000).

Self-Determination Theory offers another set of principles that seem useful in understanding how parents are likely to behave during encounters with children and how their behavior might change as children grow older. Specifically parents bring to joint activities with children their own ongoing needs for autonomy, competence and connectedness. In the process of fulfilling those needs parental behavior is directed so that it fits the circumstances present in a situation and the perceived needs, competencies and proclivities of the child (Joussemet et al. 2008). To some degree, this requires exercising various levels and types of control in the situation (Grolnick et al. 2007; Joussemet et al. 2008). For young children, whose own capacities to take care of themselves and to manage the requirements of the situation are limited, a parent is less likely to enact their own propensities to direct children's behavior so that the goals of the activity are achieved in favor of allowing some room to deal with the exigencies that present themselves (e.g., the child is tired or not feeling well, the child wanders off-task, etc.). Kucynski et al. (2015) describe this trade-off as "inner dialectics" that result from contradictions within a

person deriving from two simultaneously held but opposing ideas (e.g., I respect my child's autonomy but I also want to keep my child safe). In such cases, the parent may continue to be instrumentally and emotionally supportive to a child, but have less chance to encourage the child's self-direction (respect for autonomy) or provide stimulation directly connected to task accomplishment.

As children become more competent and self regulated (i.e., more likely to be attentive and ready to deal with the affordances of an activity) but not yet highly autonomous, parents are more likely to enact their proclivities (e.g., offer overall control in the situation while providing guidance and support for the child's engagement in the activity). As a child moves into middle childhood and becomes even more competent and inclined to act more independently, a parent is more likely to back off somewhat and let the child manage his/her own behavior. In a simple sense this could change the dialectics from a supportive parent being also highly stimulating to a supportive parent who is less consistently stimulating, given the likely perception that the child doesn't need as much guidance and information now in most situations. By the same token, there could be a kind of ambivalence between wanting to consistently show support yet let a child manage his or her own behavior (Kucynski et al. 2015). This could actually result in a parent offering direct support for the child's behavior less frequently and sometimes jumping in to re-direct a child's behavior only after the child has made some type of error. This reactive behavior might sometimes be more negative (physically or psychologically controlling) than the parent would be if they took more full control in managing the activity (Grolnick et al. 2007). In effect, when one considers the set of behaviors that are often thought to compose parental sensitivity (supportive presence, respect for autonomy, low hostility), relations between the more positive components (i.e., respect for autonomy and supportive presence) and the negative component (i.e., hostility) may not be so tight as when children are younger and less likely to challenge the parent's own sense of autonomy and competence (Joussemet et al. 2008) and sense of identity (Koepke and Denissen 2012). To summarize, for the components of a broad aspect of parenting behavior like sensitivity, one may first see a strengthening of ties between components as children move through early childhood, followed by a weakening of ties between the positive components (respect for autonomy and supportive presence) and the negative component (hostility) as they move through middle childhood.

For purposes of guiding practice related to parenting, it is important to determine whether particular parenting practices become more strongly or less strongly linked over the course of children's development. The aim of this study is to examine shifts in the strength of relation between four key

classes of parenting behavior during early and middle childhood (stimulation, supportive presence, hostility, and respect for autonomy—the latter three often considered as components of parental sensitivity; Kochanska et al. 2008; Landry and Smith 2011). Such shifts could help clarify what appears to be a declining impact of parenting on children's competence and behavioral adjustment beginning in middle childhood (Bradley and Corwyn 2013). Partly to control for the impact of setting conditions on parent behavior, we standardized the observational paradigm so that the affordances for behavior would be similar across ages. Partly to control for the impact of child characteristics on parent behavior (Russell and Saebel 1997), we included two child factors in the models as covariates: (1) gender and (2) competence; and we included child negative behavior as a predictor. As stipulated in the process model of parenting (Belsky and Jaffee 2006), parental characteristics and conditions present in the family context are also likely to influence how a parent behaves in a given situation, partly because those factors help determine how the parent's own needs are being met. To address these issues, we are including maternal education and maternal depression as predictors in the models, as research shows that both tend to be implicated in parenting practices (Davis-Kean 2005; Lovejoy et al. 2000). We are also including paternal presence in the home in the models, given research showing that maternal parenting is associated with the level of support received from fathers (Erel and Burman 1995). We also consider maternal ethnicity/race as a predictor given research showing their potential influence on parenting (Garcia Coll et al. 1996; Trommsdorff 2006).

## Method

### Participants

Data came from the NICHD Study of Early Child Care and Youth Development (SECCYD), a prospective longitudinal study of 1364 children enrolled at birth in 1991 from hospitals near 10 data collection sites in the United States. Recruited families had a healthy newborn and varied by socioeconomic level, sociocultural background, and family composition (NICHD Early Child Care Research Network 2005).

The sample consisted of 1229 families for whom mother-child observational data were available at 36 months. Data collection prior to school entry was based on child age. The actual mean age for children at age 3 data collection point was 37.5 months ( $SD = .99$ ); the mean age for the age 54 month data collection was 56.01 months ( $SD = 1.14$ ). Data collections for the NICHD SECCYD moved from an age based protocol prior to school entry to a school

year based protocol after children entered kindergarten. In the U.S., children are eligible for kindergarten at age 5. Therefore, most children are between 6.5 and 7.5 years old during the spring of Grade 1 ( $M$  age = 83.78 months,  $SD$  = 3.66). Accordingly, they are between 8.5 and 9.5 years old in the spring of Grade 3 ( $M$  = 107.87 months,  $SD$  = 3.72) and between 10.5 and 11.5 years old in Grade 5 ( $M$  = 131.81 months,  $SD$  = 4.01). Data were available for 425 families at all four waves, and 167, 128, and 109 families for any three, two, or one of the waves, respectively. Fifty-one percent of children were male, and 12% ethnic-minority (7% African American). Compared to the overall NICHD SECCYD sample, the sample used for the current study was more likely to be older, European American, more highly educated, and have higher incomes. Approximately half of both mothers and fathers in the sample held at least a Bachelor's degree, and 82% of households had an income-to-needs ratio above 2.0. As prior longitudinal studies using the NICHD SECCYD have shown, samples at later ages tend to include a higher proportion of high SES families; albeit, over time more families had experienced some form of household instability (Vandell et al. 2010).

## Procedures

Children in the NICHD Study of Early Child Care and Youth Development were followed from the birth to age 15. Data collection procedures were designed by an investigation team composed of all site PIs, co-PIs with specific areas of expertise, personnel from NICHD, and statistical experts engaged by NICHD. Data were collected in the child's home, in non-parental child care arrangement settings, in schools, and in university-based laboratories using a common set of procedures at all ten data collection sites. Training for all data collection procedures was done at a common location and all data were submitted to a single separate data analysis laboratory for purposes of data management. Videotapes of the mother–child interaction data used for this study were submitted to a common central lab for purposes of scoring (Vandell et al. 2010).

## Measures

### *Mother–child interaction*

Mothers' parenting behaviors (respect for autonomy, supportive presence, stimulation of cognitive development, hostility) were assessed during 15-min videotaped mother–child observations. At 36 months the “three boxes” procedure was followed. The first box contained washable markers, stencils and paper; the second box contained dress up clothes and a cash register; and the third box contained Duplo blocks. Mothers were told to play with the child

using the materials in each box in the order of the numbered boxes. At the 54-month lab visit, dyadic mother–child interactions involved three activities, with the objects placed in separate boxes: an Etch-A-Sketch task, a construction task using blocks, and puppets for free-play. During the Grade 1 assessment, the interaction tasks included working together to draw a picture of a house and a tree using an Etch-A-Sketch (with the mother controlling one knob and the child the other), a patterned block activity that involved using colored blocks of different parquet shapes to fill in geometric frames, and a card game. At Grade 3, mothers and children engaged in an errand-planning task in which the child determined with mother the best route around a town map to accomplish 11 errands (e.g., return book to library). At Grade 5, mothers and children engaged in a problem-solving task that involved construction of a bungee jump for an egg. The materials used as part of the task included a frame, an egg, panty hose, 40 pennies, a ruler, scissors, paper towels, pages from a newspaper, masking tape, and a plastic storage box. Parenting behaviors (supportive presence, respect for autonomy, stimulation of cognitive development, hostility) were coded using a 7-point Likert scale (1 = very low to 7 = very high). At each of the five time points, the same operational definition for each construct was used to guide the coding. Reliability estimates for parenting behaviors, via calculation of the intra-class correlation (ICC) coefficient, ranged from .70 to .89 over the five assessment periods. Child negativity was also rated from the videotaped interactions at each age on the same 7-point scale (1 = very low; 7 = very high). Reliability estimates ranged from .74. to .89. Although the overall study protocol allowed for adults other than mothers to participate in the mother–child interaction paradigm, only data from mothers were used for this particular study.

### *Maternal and family variables*

During the 1-month home interview, mothers reported their educational attainment and ethnicity. Because of the limited number of participants who were ethnic minorities, the sample was coded 1 = white vs. 0 = other for this study (consistent with other studies using the NICHD SECCYD data; Vandell et al. 2010). At every wave, mothers reported whether the child's father lived in the home. Maternal depressive symptoms were assessed at every wave using the Center for Epidemiological Studies Depression Scale (CES-D, Radloff 1977) as well.

### *Child competence*

Child competence was assessed using the Applied Problems and Letter-Word Identification component scores from the Woodcock-Johnson Achievement and Cognitive



Batteries (1990) at first grade. A composite score was formed by averaging the standardized scores from the two subtests.

**Data Analyses**

Multilevel modeling (Bolger and Shrout 2007; Kenny et al. 2006) was used to investigate the associations between two distinct mother behaviors over time. We used multivariate multilevel modeling to account for residual dependency, which arises from the nesting structure of the data. More specifically, we modeled using mother’s parenting behaviors from the five repeated observations. The coding of time ranged from 0 to 4, where 0 corresponds to age 36 months (the first wave examined in the study). Times 1, 2, 3 and 4 represent 54 months, 1st, 3rd, and 5th grades, respectively.

Each model had two levels: level 1 (within mothers) and level 2 (between mothers). The level 1 equation modeled one of the maternal behaviors during the mother–child observations (e.g., supportive presence) as a function of the other maternal behavior (e.g., respect for autonomy), the interaction of the maternal behavior and time, parenting behaviors, the interaction of parenting behaviors and time, controlling for level 1 covariates (maternal depression, father presence). All parenting variables were within-mother centered (Raudenbush and Bryk 2002). Each pair of parenting behaviors was examined separately; therefore, we ran a total of six models: (1) respect for autonomy predicting supportive presence, (2) respect for autonomy predicting hostility, (3) respect for autonomy predicting stimulation, (4) supportive presence predicting hostility, (5) supportive presence predicting stimulation, and (6) hostility predicting stimulation. For pairings #2 and #4, the model also included a curvilinear interaction term (e.g., respect for autonomy  $\times$  time<sup>2</sup>) as these were the only models for which a curvilinear relation seemed likely (i.e., complex relations between positive and negative aspects of parental socio-emotional behavior seem likely as parent–child relationships involve more contradictory motivations as children gain more self-regulatory competence). The level 2 equation included the level 2 covariates (child sex, child competence). All analyses were modeled using the MIXED procedure in SAS (v9.2, 2003). For each model of mothers’ parenting behavior, the random effects of the other parenting variable were tested using the nested comparison likelihood ratio (Singer and Willett 2003). Degrees of freedom were based on Satterthwaite estimations.

**Results**

Mothers generally showed moderate to high levels of respect for autonomy (*Ms* = 4.6 to 5.3 on a 7-point scale)

and supportive presence (*Ms* = 4.5 to 5.3) and moderate levels of stimulation (*Ms* = 3.4 to 4.5). By contrast, mothers showed very little hostility, with almost all parents rated in the low range (*Ms* = 1.2 to 1.5). The distribution for hostility was positively skewed with *SDs* ranging from 0.6 to 0.9.

Tables 1–6 summarize results for relations between the four parenting behaviors (see also Figures 1–3). Consistent with expectations, mothers’ respect for autonomy showed strong associations with their supportive presence ( $\gamma = 0.59$ ,  $t(2609) = 21.10$ ,  $p < .0001$ ) (Table 1) and stimulation ( $\gamma = 0.35$ ,  $t(4150) = 10.07$ ,  $p < .0001$ ) (Table 3). The association between respect for autonomy and supportive presence increased from 36 months to grade 5 ( $\gamma = 0.02$ ,  $t(3340) = 2.06$ ,  $p < .05$ ), however, the association between respect for autonomy and stimulation did not show much change from 36 months to grade 5. Respect for autonomy also showed a robust negative association with expressed hostility ( $\gamma = -0.23$ ,  $t(3598) = -8.52$ ,  $p < .0001$ ) (Table 2). However, there was a curvilinear relation between the two over time, with the association strengthening between 36 and 54 months then growing weaker from 54 months through 5th grade ( $\gamma = 0.03$ ,  $t(4229) = 3.58$ ,  $p < .001$ ). Supportive presence showed a strong association with stimulation ( $\gamma = 0.67$ ,  $t(2274) = 22.68$ ,  $p < .0001$ ), but one that grew weaker with time, as expected ( $\gamma = -.10$ ,  $t(3658) = -7.92$ ,  $p < .0001$ ) (Table 5). Supportive presence also showed a robust negative association with hostility ( $\gamma = -0.21$ ,  $t(3282) = -8.86$ ,  $p < .001$ ); but, somewhat contrary to what we expected, the association did not change much over time (Table 4). Finally, hostility showed an expected negative

**Table 1** Multilevel analysis results for respect for autonomy and supportive presence

	$\gamma$	<i>se</i>	95% Confidence bands
<b>Fixed effects</b>			
Intercept	-0.031	0.249	-0.529 to 0.467
Respect for autonomy	0.589***	0.028	0.535 to -0.643
Time	-0.040***	0.009	-0.058 to -0.032
Respect for autonomy $\times$ time	0.023*	0.011	0.003 to 0.043
Child sex	0.064	0.046	-0.036 to -0.154
Child negativity	-0.120***	0.015	-0.150 to -0.090
Father lives at home	0.195***	0.044	0.109 to 0.281
Maternal education	0.143***	0.010	0.123 to 0.163
Maternal race/ethnicity	0.434***	0.047	0.342 to 0.526
Maternal depression	0.004*	0.002	0.000 to 0.008
Child competence	0.012***	0.002	0.008 to 0.016

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 2** Multilevel analysis results for respect for autonomy and hostility

	$\gamma$	<i>se</i>	95% Confidence bands
Fixed effects			
Intercept	3.291***	0.163	2.972 to 3.610
Respect for autonomy	-0.226***	0.027	-0.279 to -0.173
Time	0.089***	0.021	0.048 to 0.130
Respect for autonomy $\times$ time	-0.059*	0.029	-.116 to -0.002
Time $\times$ time	-0.030***	0.005	-0.040 to -0.020
Respect for autonomy $\times$ time $\times$ time	0.025***	0.007	0.011 to 0.039
Child sex	-0.020	0.030	-0.079 to 0.039
Child negativity	0.186***	0.011	0.164 to 0.208
Father lives at home	-0.150***	0.031	-0.211 to -0.089
Maternal education	-0.050***	0.007	-0.064 to -0.036
Maternal race/ethnicity	-0.144***	0.031	-0.205 to -0.083
Maternal depression	-0.002	0.002	-0.006 to 0.002
Child competence	-0.004***	0.001	-0.006 to -0.002

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 3** Multilevel analysis results for respect for autonomy and stimulation

	$\gamma$	<i>se</i>	95% Confidence bands
Fixed effects			
Intercept	-0.653**	0.245	-1.133 to -0.173
Respect for autonomy	0.353***	0.035	0.284 to 0.422
Time	-0.249***	0.012	-0.273 to -0.225
Respect for autonomy $\times$ time	-0.018	0.014	-0.045 to 0.009
Child sex	-0.026	0.045	-0.114 to 0.062
Child negativity	-0.068***	0.019	-0.105 to -0.037
Father lives at home	0.284***	0.050	0.086 to 0.382
Maternal Education	0.143***	0.010	0.123 to 0.163
Maternal Race/Ethnicity	0.373***	0.046	0.283 to -0.463
Maternal Depression	0.003	0.002	-.001–0.007
Child Competence	0.013***	0.002	0.009–0.017

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

association with stimulation ( $\gamma = -0.33$ ,  $t(3996) = -6.70$ ,  $p < .0001$ ) (Table 6). It was an association that became weaker with time, also as expected ( $\gamma = 0.07$ ,  $t(4268) = 3.47$ ,  $p < .001$ ).

In each model where maternal respect for autonomy was examined in relation to other maternal behaviors, child negativity was a significant factor in the models, particularly so in the model involving maternal hostility ( $\gamma = 0.19$ ,  $t(3501) = 16.84$ ,  $p < .001$ ) (Tables 1–3). Likewise, child negativity was a strong factor in the model relating maternal supportive presence and maternal hostility ( $\gamma = 0.19$ ,  $t(3451) = 16.95$ ,  $p < .0001$ ) (Table 4); and in the model

linking maternal stimulation and maternal hostility ( $\gamma = -0.09$ ,  $t(3996) = 6.70$ ,  $p < .0001$ ) (Table 6). However, child negativity was not significant in the model linking maternal supportive presence and maternal stimulation (Table 5). It was also the case that most other maternal and child factors included in the models (maternal education, father presence, maternal race, child competence) were also significant in all models (see Tables 1–6). The only exception was maternal depressive symptoms. It was only significant in the model that examined relations between maternal respect for autonomy and maternal supportive presence ( $\gamma = 0.004$ ,  $t(3596) = 2.02$ ,  $p = .04$ ) (Table 1).

## Discussion

Relationships between parents and children tend to be complex, with each adapting to the behavior of the other and an evolving perception of what the other needs and wants. In the process, both parent and child engage in a pattern of behavior that is consistent with their own personality (Belsky and Jaffee 2006; Koepke and Denissen 2012). Findings from this study reveal both consistency and change in relations between four key parenting behaviors through early and middle childhood. On the one hand, there was a strong and consistent relation between two positive aspects of maternal sensitivity (respect for autonomy and supportive presence) as each derives from contextual conditions and parental characteristics and beliefs that tend to remain stable for most mothers. The continuing strong relation between these two behaviors is not surprising in that it reflects a mother's general disposition to positively engage her child. Generally speaking, the behavior of children, although it may change somewhat in response to



**Table 4** Multilevel analysis results for supportive presence and hostility

	$\gamma$	<i>se</i>	95% Confidence bands
Fixed effects			
Intercept	3.294***	0.164	2.973 to 3.615
Supportive presence	−0.210***	0.024	−0.257 to −0.163
Time	0.054**	0.020	0.015 to 0.093
Supportive presence × time	−0.028	0.027	−0.081 to 0.025
Time × time	−0.021***	0.005	−0.031 to −0.011
Supportive presence × time × time	0.011	0.007	−0.003 to 0.025
Child sex	−0.020	0.030	−0.078 to 0.038
Child negativity	0.183***	0.011	0.061 to 0.205
Father lives at home	−0.158***	0.030	−0.217 to −0.099
Maternal education	−0.049***	0.007	−0.063 to −0.035
Maternal race/ethnicity	−0.145***	0.031	−0.206 to −0.084
Maternal depression	−0.001	0.002	−0.005 to 0.003
Child competence	−0.004***	0.001	−0.006 to −0.002

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 5** Multilevel analysis results for supportive presence and stimulation

	$\gamma$	<i>se</i>	95% Confidence bands
Fixed effects			
Intercept	−0.682**	0.240	−1.152 to −0.222
Supportive presence	0.668***	0.029	0.611 to 0.725
Time	−0.221***	0.011	−0.243 to −0.199
Supportive presence × time	−0.099***	0.013	−0.124 to −0.074
Child sex	−0.027	0.044	−0.113 to 0.059
Child negativity	−0.003	0.018	−0.038 to 0.032
Father lives at home	0.280***	0.048	0.086 to 0.374
Maternal education	0.143***	0.001	0.141 to 0.145
Maternal race/ethnicity	0.377***	0.045	0.289 to 0.465
Maternal depression	0.001	0.003	−0.005 to 0.007
Child competence	0.013***	0.002	0.007 to 0.017

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 6** Multilevel analysis results for hostility and stimulation

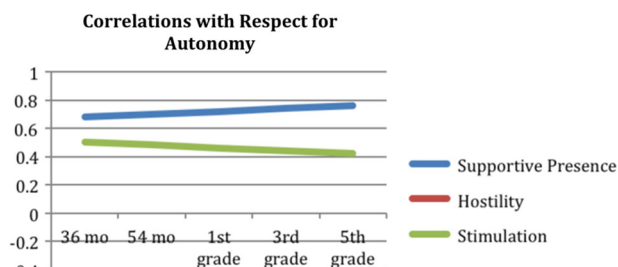
	$\gamma$	<i>se</i>	95% Confidence bands
Fixed effects			
Intercept	−0.493*	0.244	−0.971 to −0.015
Hostility	−0.326***	0.049	−0.422 to −0.230
Time	−0.289***	0.012	−0.313 to −0.265
Hostility × time	0.074***	0.021	0.033 to 0.115
Child sex	−0.021	0.044	−0.107 to 0.065
Child negativity	−0.088***	0.020	−0.127 to −0.049
Father lives at home	0.289***	0.050	0.191 to 0.387
Maternal education	0.141***	0.010	0.121 to 0.161
Maternal race/ethnicity	0.368***	0.046	0.278 to 0.458
Maternal depression	0.003	0.003	−0.003 to 0.009
Child competence	0.013***	0.002	0.009 to 0.017

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

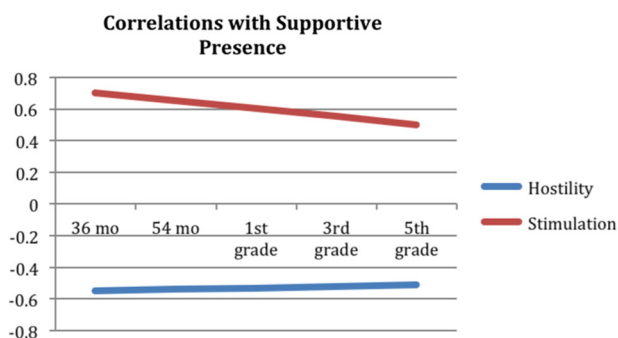
the kinds of conditions observed for this study, would not likely affect degree of co-occurrence for these two aspects of maternal behavior. Moreover, to partially address the issue of child impacts on parenting behavior, we included both child negativity and competence in the equation. On the other hand, as expected, the consistency of relations observed between respect for autonomy and supportive presence throughout early and middle childhood was not observed for most of the other pairs of maternal behavior.

Somewhat contrary to expectations, the relation between respect for autonomy and stimulation remained relatively constant from 36 months to 5th grade. Relations between

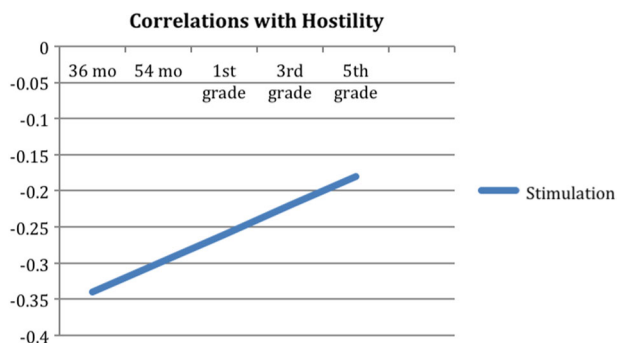
the two were moderate. Although the bivariate relation between the two appears a little lower at 5th grade, for stimulation the interaction of respect for autonomy and time was not quite significant. Interestingly, child competence was positively associated with respect for autonomy and stimulation. Perhaps mothers derive an overall sense of their children’s abilities and how likely their children are to benefit from instrumental support in ordinary daily activities. Thus, mothers may be predisposed to allow more able children to engage in most activities without too much control but also to provide what appears to be useful information to the child during the course of the activity—a



**Fig. 1** Correlations with respect for autonomy



**Fig. 2** Correlations with supportive presence



**Fig. 3** Correlations with hostility

kind of “Matthew effect” that remains fairly constant over time.

By contrast, the relation between supportive presence and stimulation did shrink across time. As expected, as children became more competent and independent as they grew older, mothers’ provision of guidance or information during the tasks observed was not as frequently accompanied by manifest socio-emotional support. A number of factors might come into play as regards the declining level of association between maternal provision of stimulation and manifest socio-emotional support. For example, such a finding would seem to comport with the idea that mothers may become more ambivalent about actively directing a child’s behavior as the child develops greater capacity for

self-direction and has less need for direct assistance. In effect, advances in child competence may give rise to some contradictory impulses on the part of parents; that is, the parent wants to continue to show support but they also recognize the child’s increased capacities for self-directed engagement in tasks (Kucynski et al. 2015).

Interestingly, the evolving dialectic between maternal behaviors connected with sensitivity and stimulation also were manifest in the gradual weakening of relations between maternal hostility and stimulation. During early childhood the relation was moderate (around  $r = -.35$ ). However, the relation dropped to lower than  $r = -.20$  by 5th grade. This suggests that a mother’s tendency to display hostile behavior (generally low levels were recorded during the episodes observed) was less and less connected to her propensity to offer information and direction to the child. What the overall findings seem to suggest is that a mother’s disposition to provide stimulation is somewhat less connected to her general propensity to be supportive of the child during middle childhood than during early childhood. This comports with the idea that parental expectations pertaining to child behavior change as children move through middle childhood and into adolescence (Collins et al. 2006). In effect, the dispositions pertaining to enacting various types of parental behaviors in particular kinds of situations becomes more and more differentiated (an evolving dialectic).

We attempted to structure our analyses of maternal behavior in accordance with the general principles of parenting behavior outlined by Belsky and Jaffee (2006). More specifically, we included markers of parental characteristics, child characteristics, and family context in the models. Not surprisingly, we observed positive associations between maternal education and three of the four parenting behaviors examined (respect for autonomy, supportive presence, and stimulation). Likewise, we observed a negative association between maternal education and maternal hostility (Davis-Kean 2005). On the other hand, we found very little association between maternal depressive symptoms and maternal behavior—likely because we had very few cases of clinical depression and mothers who were depressed at the time observations were scheduled would less likely show up.

The measures of child characteristics showed expected relations with maternal behavior. Specifically, when children expressed negative behavior during the observations, it was associated with higher levels of maternal hostility and lower levels of maternal stimulation. As noted by others, when children display disruptive and challenging behavior, more conflict is observed between parent and child (Collins et al. 2006; Laursen et al. 2015). The findings are consistent with classic notions from interdependence theory about intimate interpersonal relationships (Kelley et al. 2003). Members of a dyad routinely appraise the behavior of the

other in light of what they know about a given situation and what they believe their partner will think and do.

Individual motivations and behavioral tendencies undergo transformation as the interaction proceeds. Interestingly, every form of positive maternal behavior was higher for more competent children. As well, the level of maternal hostility was lower—another manifestation of a “Matthew effect” evidenced by these patterns of association. This finding was not surprising in that prior research has shown that children higher in academic competence also tend to manifest better self-regulation and that parents tend to provide more autonomy support for such children (Grolnick and Ryan 1989). A concern is what happens when children are not so competent. Rather than the most needy getting the greatest level of support, those that already have the greatest skills tend to get more. (Stanovich 1986).

It is noteworthy that father’s presence in the home was associated in ways that would be predicted with all four of the maternal behaviors, especially given that multiple predictors of parenting are included in the models. What accounts for this relation is not fully clear from the current study. However, it is likely that paternal presence and support of the mother (and the family more broadly) would enable a mother to invest more fully in her children. Research by Green et al. (2007) showed that mothers with more social support were less anxious and spent more time interacting with their children. Having a father present in the home also tends to be associated with better health and fewer behavioral difficulties for children (Gardiner et al. 2015; McLanahan et al. 2013). Broadly, a meta-analysis conducted by Erel and Burman (1995) revealed direct influences between the quality of the marital relationship and the quality of the child’s relationship with the parents.

As children grow older, their perceptions of who they are and what they can do (i.e., their identity) typically undergo transformation. The “inner dialectics” connected to this transformation can involve lots of contradictory impulses, some of which motivate conflicts (or at least negative exchanges) in relationships with parents (Kucynski et al. 2015; Steinberg and Morris 2001). Research shows that there is greater lability in perceived closeness and perceived conflict during the movement through middle childhood and into adolescence (Marceau et al. 2014; Shearer et al. 2005). Complementary reworking of the parent–child relationship is an ongoing process that often pushes parents (especially mothers) to maintain some control over what transpires during encounters with their children (Grolnick et al. 2007; Koepke and Denissen 2012). Reworking can also occur when parents are trying to promote autonomy while at the same time challenging children to be more productive (Dailey 2008), especially as children move through middle childhood and into adolescence and quit utilizing the parent

as much to make decisions and solve problems (Kerns et al. 2006). As a result, mothers may sometimes act in ways that are commanding, demanding or even mildly harsh even as they continue to try to offer support to their children. Such a movement in the dialectics of parent–child interaction may well explain the diminishing relations observed between expressed maternal hostility (again, relatively low levels) and the three positive parenting behaviors observed in this study. The manifestation of greater sensitivity was less connected with less expression of hostility as children moved through middle childhood. A simple linear pattern was observed for relations of hostility with both stimulation and supportive presence; whereas, a more complex curvilinear relation was observed with respect for autonomy. In the latter case, there was a small strengthening of the negative relation with hostility during the period from 36 months to 54 months, followed by a gradual decline in the association through grade 5. Perhaps the initial strengthening occurs as a consequence of mothers becoming less fearful that the child might get hurt and more comfortable with the child’s capacities for self-regulation. Specifically, when children are very young mothers are likely to somewhat torn between the roles of mother as protector and mother as instrumental supporter of the child. Thus, they might react occasionally in ways that appear slightly harsh in an effort to protect a child from harm or to get the child focused on the task at hand.

Findings from this study are consistent with a shifting dialectic in mother–child interaction over the course of early and middle childhood. In some ways this perhaps reflects a normative process of distancing that occurs in parent–child relationships as children become more autonomous (Ben-Ari 2012). Better characterizing the shifting dynamics of parenting behavior is important, both for those involved in parent education and those involved in counseling parents who may have children who present difficulties. Knowing more about when things happen, how often they happen, under what conditions they happen, and whether they change over time gives more precise direction for those engaged in prevention and intervention efforts. In that regard, it would be useful for researchers examine shifting dynamics in parent–child interactions for fathers as well mothers, and it would be useful to examine possible shifting dynamics in parent–child interactions during conditions that have different affordances than those present in the observations used for this study.

## Limitations

Although study findings are consistent with theory and research pertaining to shifting dialectics in parent–child interactions, the study has limitations that must be

considered in any interpretation of the findings. First, the sample did not contain very many families that lived in adverse conditions or families where mothers have clinical levels of depression. Given that family context is a factor in determining parenting (Belsky and Jaffee 2006), the associations observed may not apply to high-risk families. Second, although an effort was made to use observational paradigms that had many of the same affordances (e.g., there were none specifically designed to promote contentious behavior), the affordances were not identical at all measurement points. Thus, some of the estimates could be somewhat in error. This second limitation acknowledged, there were not major differences in the mean scores for most parenting variables across time and relations between key parenting variables were more like than unlike over time, with greater shifts following patterns that seemed to follow from theory.

**Author Contributions** R.B.: One of the investigators for the original NICHD Study of Early Child Care and Youth Development. Was PI for one of the ten data collection sites, so trained and supervised data collection staff. Conceptualized current study and helped supervise data analysis for study. Prepared original text for manuscript and helped in rewriting text based on input from others. A.P.: Conducted data analysis under supervision of Bradley and Iida and prepared original text for Methods and Results sections. Reviewed and offered recommendations for revision of manuscript. M.I.: Designed data analysis and supervised Pennar in execution of analyses. Read and made recommendations for revision of all manuscript sections. M.O.: One of the investigators for the original NICHD Study of Early Child Care and Youth Development. Helped design the mother–child interaction data collection paradigm and supervised the lab that scored videotapes of all MCI data for the parent study. Reviewed and offered recommendations for revision of all sections of manuscript. D.V.: An investigator for the NICHD Study of Early Child Care and Youth Development. Was PI for one of the data collection sites, so helped train and supervise data collectors at the site. Helped design the mother–child interaction tasks. Read and offered recommendations for revision of the manuscript.

#### Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no competing interests.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The study was conducted as part of a collaborative agreement between the National Institute of Child Health and Human Development and ten collaborating institutions of higher learning. Data collection protocols were reviewed and approved by a steering committee approved by NIH and reviewed by institutional review boards at the 10 collaborating institutions.

**Informed Consent** Informed consent was obtained by all individual participants included in this study.

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